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The Massachusetts Medical Society

PROCEEDINGS OF THE COUNCIL

Stated Meeting, October 3, 1934

A STATED MEETING of the Council was held in John Ware Hall, Boston Medical Library, on Wednesday, October 3, 1934 at 12 o'clock noon. The President, Dr. William H. Robey (Suffolk) was in the chair and the following 163 Councilors present:

BARNSTABLE
S. M. Beale
W. D. Kinney
J. I. B. Vail

BRISTOL NORTH
A. R. Crandell

BRISTOL SOUTH
R. B. Butler
R. H. Baxter
G. W. Blood
E. F. Cody
P. E. Truesdale

ESSEX NORTH
E. S. Bagnall
R. V. Baketel
J. F. Burnham
H. F. Dearborn
A. P. George
T. R. Healy
E. P. Laskey
F. W. Snow
L. T. Stokes
W. D. Walker

ESSEX SOUTH
F. W. Baldwin
J. F. Donaldson
R. E. Foss
W. T. Hopkins
J. F. Jordan
A. E. Parkhurst
O. S. Pettingill
C. H. Phillips

FRANKLIN
H. G. Stetson

HAMPDEN
A. J. Douglas
F. H. Allen
W. A. R. Chapin
Frederic Hagler
M. W. Pearson
A. G. Rice
G. L. Schadt

MIDDLESEX EAST
J. H. Blaisdell
Richard Dutton
E. M. Halligan
R. R. Stratton

MIDDLESEX NORTH
M. L. Alling
A. R. Gardner
M. A. Tighe

MIDDLESEX SOUTH
C. F. Atwood
E. W. Barron
C. F. K. Bean
E. H. Bigelow
G. F. H. Bowers
F. R. Clark
W. H. Crosby
A. C. Cummings
D. F. Cummings
A. W. Dudley
A. M. Jackson
Josephine D. Kable
A. A. Levi
F. P. Lowry
L. W. McGuire
J. A. McLean
Edward Mellus
C. E. Mongan
F. L. Morse
Dwight O'Hara
C. T. Porter
Ezekiel Pratt
W. D. Reid
S. H. Remick
F. G. Smith
C. H. Staples
H. P. Stevens
H. W. Thayer
W. S. Whittemore

NORFOLK
K. R. Bailey
F. G. Balch
H. G. Batchelder
A. S. Begg
D. D. Berlin
W. L. Burrage
D. G. Eldridge
I. A. Finkelstein
J. E. Fish
Alice M. Gray
J. B. Hall
L. F. Johnson
F. E. Jones
G. W. Kaan
C. J. Kickham
W. A. Lane
J. S. H. Leard
F. W. Marlow, Jr.
J. S. May
S. F. McKeen
Hyman Morrison
T. J. Murphy
Samuel Nadel
Victor Safford
D. D. Scannell
A. J. Shadman

NORFOLK SOUTH
C. S. Adams
W. G. Curtis
G. V. Higgins
F. E. Jones
N. R. Pillsbury
C. A. Sullivan

PLYMOUTH
L. A. Alley
P. H. Leavitt
J. J. McNamara
G. A. Moore
A. C. Smith

SUFFOLK
R. L. DeNormandie
A. E. Austin
G. H. Bigelow
Horace Binney
W. B. Breed
J. E. Briggs
C. S. Butler
David Cheever
F. J. Cotton
W. P. Cross
Lincoln Davis
Reginald Fitz
Channing Frothingham
G. L. Gately
R. B. Greenough
H. T. Hutchins
E. P. Joslin
F. H. Lahey
R. I. Lee
G. A. Leland
J. H. Means
T. J. O'Brien
A. K. Paine
F. W. Palfrey
W. H. Robey
G. C. Shattuck
W. M. Shedden
W. R. Sisson
Louisa Paine Tingley
G. L. Tobey, Jr.
H. P. Towle
Shields Warren
F. A. Washburn
Conrad Wesselhoeft

WORCESTER
E. B. Emerson
J. C. Austin
W. P. Bowers
L. R. Bragg
P. H. Cook
W. J. Delahanty
G. A. Dix
G. E. Emery
M. F. Fallon
J. J. Goodwin
David Harrower
E. L. Hunt
E. R. Leib
A. W. Marsh
J. W. O'Connor
W. C. Seelye
F. H. Washburn
S. B. Woodward

WORCESTER NORTH
F. R. Dame
A. F. Lowell
W. F. Sawyer

On motion by Dr. S. B. Woodward (Worcester) the reading of the record of the last meeting was omitted by vote. The Chair spoke as follows:

Since the last meeting of the Council death has taken from us two of our members.

Dr. Irving Jewell Fisher of 79 Chestnut Street, West Newton, Massachusetts, died August 30, 1934, at Liverpool, England, following an operation for an acute illness.

He was born in 1877, graduated from the Harvard University Medical School in 1900, and joined the Massachusetts Medical Society in 1902. He was a member of the Council at the time of his death.

Dr. Fisher was a member of the staff of the Newton Hospital and of the executive committee of the trustees. He is survived by his widow and two children.

Dr. William Andrew Nield of 286 Pleasant Street, New Bedford, Massachusetts, died at the Massachusetts General Hospital, June 12, 1934, of coronary thrombosis.

He was born in Millbury, Mass., September 12, 1874, graduated in medicine from the Baltimore Medical College in 1902, and had practiced general medicine for thirty-two years. He was especially interested in tuberculosis and crippled children. He was the President of the Sol-e-Mar Hospital, where orthopedic service for children is maintained.

Dr. Nield joined the Massachusetts Medical Society in 1911 and was a member of the Council at the time of his death.

He said also that the Society mourned a devoted Fellow in the passing on September 8 of Gilman Osgood of Rockland, who had for years represented the Society in the House of Delegates of the American Medical Association and had been a member of the standing Committee on Membership and Finance. The chairman of the standing Committee of Arrangements for the Annual Meeting next June reported as follows:

DR. W. M. SHEDDEN (Suffolk): Your Committee has considered the Hotels Statler, Copley Plaza, Ritz, and Manger. The first mentioned, namely, the Statler, seemed to be the only one suitable for both scientific meetings and commercial exhibits. Despite your Committee's best efforts, the American Medical Association has chosen the second week in June for its meeting, and therefore I move that the dates of our meeting be June 3, 4, and 5. I have a letter from Dr. Cheever, saying he will make every effort to have the American Surgical Society choose dates not in conflict with our meeting. The scientific exhibits will be extremely interesting, larger in number than previously, and under the supervision of Dr. Horatio Rogers.

For the first time we are going to have an organized women's committee to take care of the entertainment of the wives and female relatives of visiting doctors. Mrs. W. H. Robey has kindly consented to be the chairwoman of this committee and will cöoperate with our committee as regards entertainment.

We have written to the secretaries of the various Sections, asking if they would consider getting information as to what the various members of the Society wanted on the program by writing letters to the District Societies. We have also notified them of tentative dates for their various Sections and asked them if they would notify us if those were not satisfactory.

The report was duly accepted by vote. Dr. J. E. Fish (Norfolk), a member of the standing Committee on Membership and Finance presented the two reports of this committee and they were accepted separately and their recommendations adopted.

REPORT OF THE COMMITTEE ON MEMBERSHIP AND FINANCE ON MEMBERSHIP

This Committee recommends:

1. That the following named six Fellows be allowed to retire under the provisions of Chapter I, Section 5, of the By-Laws:

1. Faulkner, Herbert Kimball, Keene, N. H.
2. Fletcher, Robert Whitney, South Boston.
3. Mead, Frederick Ammi, Williamanset, with remission of dues, 1934.
4. Mellen, Eleanor Way Allen, Newton Highlands, with remission of dues, 1933, 1934.
5. Wells, David Washburn, West Newton.
6. Winn, Charles Henry, Newton Center.

2. That dues of the following named two Fellows be remitted under the provisions of Chapter I, Section 6, of the By-Laws:

1. Muldoon, Mary Theresa, Waverley, 1934, in part.
2. Talty, Francis Eugene, Arlington, 1931 in part, 1932, 1933.

3. That the following named two Fellows be allowed to resign under the provisions of Chapter I, Section 7, of the By-Laws:

1. Ackerly, Samuel Spafford, Louisville, Ky., with remission of dues, 1934.
2. Barrell, Mary Elizabeth, York Village, Maine, with remission of dues, 1934.

4. That the following named nine Fellows be deprived of the privileges of Fellowship under the provisions of Chapter I, Section 8, Clauses (a) and (b) of the By-Laws:

1. Barrier, Emile August, Brighton.
2. Dreyfus, Edna Weil, Brookline.
3. Hunt, Robert Bates, Arlington.
4. Kelley, Lawrence Kendall, Peabody.
5. Koppel, William, Dorchester.
6. Landry, Ernest Joseph, Westfield.
7. Merlin, Samuel Abraham, Dorchester.
8. Parris, Roland Oliver, Boston.
9. Robbins, Waldo Whiting, Cambridge.

5. That the following named two Fellows be deprived of the privileges of Fellowship under the provisions of Chapter I, Section 8, Clause (c) of the By-Laws, this recommendation following, in each instance, a unanimous vote, to the same effect, by the Committee on Ethics and Discipline:

1. Carr, Percy Whitman, Hyde Park.
2. Van Gaasbeek, Harold, Chicopee Falls.

The case of Dr. Carr was mentioned in the report of the Committee on Ethics and Discipline, at the Annual Meeting of the Council, last June. He had been convicted, after a trial before a judge and jury for "administering a drug with intent to cause a miscarriage", had been sentenced and was already serving a term in the State Prison.

Dr. Van Gaasbeek was convicted in a Court of Law, last July, for "having been accessory before and after the fact in procuring an abortion".

6. That the following named nine Fellows be allowed to change their membership from one District Society to another without change of legal residence, under the provisions of Chapter III, Section 3, of the By-Laws:

One from Middlesex East to Middlesex South

1. Jones, Frank Leslie, Winchester.

One from Middlesex South to Norfolk

1. Mollica, Zachary Amerigo, Belmont.

Two from Middlesex South to Suffolk

1. Kappius, Meinolf Valen, Newtonville.
2. Meltzer, Philip Edward, Newton.

Five from Norfolk to Suffolk

1. Banks, Benjamin Max, Roxbury.
2. Browne, William Edward, Brookline.
3. Cass, John William, Jr., Brookline.
4. Cox, William Vernon, Brookline.
5. Strauss, Maurice Benjamin, Brookline.

DAVID N. BLAKELY, *Chairman.*

REPORT OF THE COMMITTEE ON MEMBERSHIP AND FINANCE ON FINANCE

At the Annual Meeting of the Council last June, the report of the Committee on Medical Education and Medical Diplomas, which was accepted, contained a recommendation that the Society offer an annual prize of $50.00 for the best written and most comprehensive case report submitted by an intern holding any one of the rotating internships now offered in Massachusetts and approved by the American Medical Association. In order that this prize may be offered, our Committee recommends that $50.00 be appropriated at this time for this purpose.

Our Committee also recommends that the dues for the year 1935 be the same as for the past three years, namely, $10.00 for Resident Fellows and $6.00 for Non-Resident Fellows.

DAVID N. BLAKELY, *Chairman.*

The Secretary presented the reports of the committees appointed at the last meeting to consider the petitions for restoration to the privileges of fellowship of P. R. Oeser, P. J. O'Day, H. S. Queen and G. L. Lemaitre and it was voted to restore each of the petitioners under the usual conditions except that Dr. Oeser was to pay the Society the dues for the current year only, within one month of the day of this meeting, following the recommendation of the committee appointed to consider his petition. Petitions of the following deprived Fellows were read by the Secretary, and committees to consider them were nominated by the Chair and appointed by the Council, as follows:

For R. H. Morris
A. A. Jackson, J. F. Williams, Harris Bass.

For Henry Boruchoff
F. W. Gay, C. H. Staples, S. G. Pavlo.

For R. E. Hubbard
A. H. Ellis, A. E. Johnson, Jr., H. M. Kemp.

For Abraham Burack
J. J. McNamara, A. C. Smith, T. H. McCarthy.

For J. P. Bill
H. A. Osgood, R. M. Green, A. S. Begg.

The committee appointed at the Annual Meeting to consider the proposed resolution of the Legislative Committee of the Hampden District Medical Society reported through Dr. Reginald Fitz, *Chairman*, that the committee had had a meeting with Dr. W. A. R. Chapin and the officers of the Society and had decided that no action was necessary. The report was accepted by vote. The Chair nominated and the Council appointed the following Auditing Committee: J. W. Cummin and R. M. Smith. Also he nominated to fill vacancies as follows: In the personnel of the standing Committee on Membership and Finance to take the place of Dr. Gilman Osgood: Dr. H. Q. Gallupe of Newton; as a councilor to replace Dr. W. A. Nield of Bristol South: Dr. C. C. Tripp of New Bedford; and to replace Dr. I. J. Fisher, Councilor of Middlesex South: Dr. R. D. Leonard of Chestnut Hill (Newton). They were duly appointed by vote.

Dr. George H. Bigelow (Suffolk), took the floor and expressed his appreciation of the fine work that had been accomplished at the State House by the officers and committees of the Society in opposing bad medical legislation and in favoring desirable bills, speaking from his experience as Commissioner of Public Health of the Commonwealth of Massachusetts. He had a feeling that, respecting the many important matters that are facing the medical world to-day, it would be well if the Council, representing the Society, expressed an opinion on whether it felt that it was suitable for the Society to initiate legislation on such important matters, for instance, to elevate the standards of medical practice. It seemed to him right that the public should expect from the leading medical society of the State an interest in correcting a condition that has for years been notoriously unsatisfactory. He thought that Dr. W. P. Bowers, from his twenty-seven years' service as a member of the State Board of Registration in Medicine, beginning in 1894, had facts of value concerning conditions as to the registration of physicians in Massachusetts. Dr. W. P. Bowers (Worcester), spoke as follows:

I presume that Dr. Bigelow referred to me because of my somewhat extended service on the Board of Registration in Medicine, and also because I had appeared from time to time dealing with the problems before the Society with reference to raising the standards of medical practice in Massachusetts. You may all remember that the Board of Registration in Medicine was created in 1894 in order to register the supposedly reputable physicians in Massachusetts. That board was empowered to register all, at that time, who had been in practice three years in the Commonwealth. When the Board was organized and began to operate under this statute it was very much surprised to find that there were a great many people in Massachusetts who wished to be registered, who claimed to have practiced medicine but who never were able to substantiate that claim. Many people, however, were registered who had had only a very limited practice, and had not been educated as physicians. I remember one or two whose previous medical education consisted of running a blacksmith shop, yet having friends who ap-

peared and affirmed that the applicant had prescribed for them. They were duly registered because the law obliged the Board to register those who could show any evidence of practicing somewhere in the state for three years. The law as it was passed at that time remained practically unaltered in the statutes, so far as medical education was concerned, until 1915, when, after several strenuous efforts by the Board of Registration, the Legislature passed an amendment which required a person to be a graduate of a legally constituted medical school which gave a four years' course, provided that such person had had a premedical education equivalent to that which is required for graduation from a public high school. Public high schools vary greatly in their requirements for graduation as conditions are variable. Some in the small communities graduate their pupils without anything in the way of an education which would prepare them to study medicine. The Board is obliged to admit to examination, people who study the prescribed years in medicine and have received degrees. Applicants with inadequate preparation for practice succeed in passing the examination of the Board.

The matter before us, as suggested by Dr. Bigelow, is: Will the Council of The Massachusetts Medical Society endorse and support a movement for raising the standards of medical education by any of the properly constituted committees, whether it be the Committee on Public Relations, the Committee on State and National Legislation, or any other committee which may be designated? In order to secure favorable action by the Legislature it will be necessary to have at least a state-wide educational campaign.

This matter, although having been before the Legislature for so many years, has been unproductive in that the Legislature was never quite ready to give to the Board of Registration in Medicine any authority to classify medical schools, as has been done by the Council on Medical Education of the American Medical Association, with the result that there are several medical schools graduating men who do not come up to the standards of the Council on Medical Education.

There are at the present time, seventy-seven recognized medical schools in the United States which were rated as Class A by this Council of the A. M. A. after careful analyses of their curricula. And you will remember that when the movement to eliminate the poor schools started about thirty years ago, there were nearly twice this number of medical schools in this country, and most of the poorer ones were either eliminated or were recognized through affiliation with larger and better schools, thus affording a means by which a given school could be brought up to a reasonable standard.

The Board of Registration in Massachusetts has no power to distinguish between those which are reputable and those which should not be recognized. Hence, the Board is now accepting graduates from substandard medical schools and also those from certain osteopathic schools, because, as defined in the Massachusetts law, osteopathy is the practice of medicine, and therefore a person who has had four years in an osteopathic school must be recognized by the Board of Registration in Medicine on a basis equal to that of a Class A medical school.

In order to give you definite information about the situation, the figures of this year show the following results:

Applicants for registration came from the following designated schools:	Examined	Rejected
College of Physicians and Surgeons, Boston	14	10
Middlesex College of Medicine and Surgery	104	82
Kansas City University of Physicians and Surgeons	38	36
Midwest Medical College	5	3
Chicago Medical School	1	1
St. Louis College of Physicians and Surgeons	3	3
Missouri College of Medicine and Science	2	2
Chicago College of Osteopathy	2	0
Massachusetts College of Osteopathy	13	7
Kirksville College of Osteopathy	13	11
Philadelphia College of Osteopathy	17	12

The total of candidates from the non-approved schools who have been examined by the Board this year is 212, of which 167 have been rejected and forty-five registered, making 78 per cent rejected; and those examined from approved schools, 137. So that you see we are having applications amounting to 212 so far this year from non-recognized schools and only 137 from recognized schools.

Massachusetts now stands as the lowest State in the Union in its requirements for medical education, and no material progress has been made since 1915. Among the eleven medical schools cited above, three are located in Massachusetts, viz., the College of Physicians and Surgeons of Boston, the Middlesex College of Medicine and Surgery, and the Massachusetts College of Osteopathy. The two last designated are departments of the University of Massachusetts which, although chartered by the Commonwealth, is not a state institution.

This subject is of great importance if progress with reference to the quality of the practice of medicine in this State is desired. The situation

seems to be one which would call for action. Every effort that has been made heretofore has resulted in refusal by the Legislature to pass any law which would place Massachusetts in a position at all equal to that occupied by the other States in the Union, and the question now is whether The Massachusetts Medical Society, through its Council, is prepared to endorse an educational campaign, which in order to be effective, must be through the electorate and in that way reach the Legislature.

Dr. F. J. Cotton (Suffolk), introduced the following resolution:

Resolved: That it is the sense of this meeting that the Massachusetts Medical Society believe a constructive policy desirable in our relation to the Legislature, particularly in matters of medical education and medical registration in the Commonwealth of Massachusetts.

This was discussed by the following Councilors: C. E. Mongan (Middlesex South), F. J. Cotton, J. H. Means, David Cheever, G. C. Shattuck, Channing Frothingham (Suffolk), J. S. H. Leard, W. A. Lane (Norfolk), and E. F. Cody (Bristol South). All were in favor of action by the Society. Dr. R. L. DeNormandie (Suffolk) said that Dr. Bowers had brought before the Council a situation as regards medical registration that does not at all redound to the credit of Massachusetts and that we should bestir ourselves to right the condition. It cannot be done by the medical profession unaided; public opinion must be informed. He thought it high time to begin a concerted action of education throughout the state and hoped that the President of the Society would inform the proper committee of the sentiment of the Council in this regard.

Dr. J. F. Burnham (Essex North) proposed this amendment to Dr. Cotton's resolution, including suggestions made by the various discussers; it was accepted by Dr. Cotton and passed unanimously when put to a vote:

The standing Committee on Medical Education and Medical Diplomas is instructed to consider and to propose suitable bills for the advancement and improvement of medical licensure in Massachusetts at the coming session of the Legislature and to work with the Committee on State and National Legislation for the passage of such legislation and to enlist the coöperation of the Committee on Public Relations.

Dr. E. F. Cody (Bristol South) read the report of the Massachusetts Delegation to the House of Delegates of the American Medical Association in Cleveland last June and it was accepted. (See Appendix.)

Dr. C. E. Mongan (Middlesex South) commented favorably on the report of Dr. Cody and told of some of his experiences as a delegate to the House of Delegates for the past ten years and more particularly, in a confidential way, of some of the doings of the Reference Committee of the Association, on Legislation and Public Relations, of which he had been chairman for two years.

President Robey reported briefly on the progress made by the Committee on Public Relations, of which he was chairman. The Committee had had a meeting on October first; it was concentrating on economic problems, trying to solve the question of better medicine and better pay in Massachusetts, and just how to bring them about. The Committee had decided to organize sub-committees in the different Districts, each District appointing a sub-committee to work on the problem and gather information on existing hospital facilities and tabulate them. The present sub-committee of the Committee on Public Relations is to draft a questionnaire for the use of the sub-committees in the Districts. When the material is brought together it may be necessary to employ a paid statistician to put the facts into proper shape. The Committee is in touch with the Government to find out what is being done for the physician who is taking care, without pay, of a large number of indigent persons. Later the Committee will make a report to the Council.

There being no further business, the Council adjourned at 1.30 P.M.

WALTER L. BURRAGE,
Secretary.

APPENDIX TO THE PROCEEDINGS OF THE COUNCIL

REPORT OF DELEGATES TO THE HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION, CLEVELAND, JUNE 11-15, 1934

The eighty-fifth annual session of the American Medical Association at Cleveland, June 11-15, was attended by some 6,300 Fellows, of whom 145 were of Massachusetts.

The meetings of the sixteen sections and three general scientific meetings constituting the Scientific Assembly presented programs of the highest standard. Among the sections 24 papers were presented by Fellows of Massachusetts. In the general scientific meetings, papers were read by Frank H. Lahey, James P. O'Hare and Walter Bauer.

The Scientific Exhibit was the largest in the Association's history, 15 sections of the Assembly coöperating through special committees appointed for that purpose. Three special exhibits were authorized by the Trustees, on encephalitis, nutrition, and special demonstrations on pathology. Sixty-three readers in various sections had exhibits on their subjects.

Among the awards of merit we are pleased to note the following:

Class I, for exhibits of original investigations, the silver medal to Timothy Leary; certificate of merit to Herrman Blumgart, J. E. F. Riseman, David Davis and A. A. Weinstein with David D. Berlin.

Class II, for exhibits judged on the basis of excellence of correlating facts and excellence of pres-

entation, the bronze medal to William P. Murphy.

The *A. M. A. Journal* of May 5 contains the full reports of the officers, Councils and Bureaus. The issues of June 23 and 30 include in full the minutes of the sessions of the House of Delegates. The *Bulletin* of the Association for June discusses the most important measures adopted by the House. In view of the free circulation of these periodicals, 60 per cent among the physicians of Massachusetts, reference to legislative actions will be omitted in this report.

In the House of Delegates this Society was represented by six delegates at all sessions. Dr. Birnie, unable to attend, was represented by his alternate, Dr. William C. Leary.

Two of the number served on reference committees, Dr. Mongan, chairman, Committee on Legislation and Public Relations; Dr. Cody on the Committee on Hygiene and Public Health.

The report of the Secretary showed the membership as of April 1 to be 98,041. The Fellowship on the same date was 60,714, as compared with 62,495 on the same date of the preceding year. During the year there were removed 5563 names while 3782 were added. The net loss for the year was 1783; 789 deceased, 1,202 ineligible for various reasons, 1,909 failed to pay dues, 1,669 resigned.

The report of the Trustees indicated that practically all operating costs were less than in the preceding year. Wages and salaries were less by $39,211; general Association activities and work of bureaus and councils were maintained at a cost of $10,000 less than in 1933; while total miscellaneous expenditures were less by $55,000.

Of the *Journal* the gross earnings were	$1,375,337
Operating expenses	836,954
	$538,383
Gross income of Association Rents, publications, investments, miscellaneous,	$635,156
Less expenses of Association and miscellaneous	546,691
Net income	$88,465

The circulation of the *Journal* decreased by 3412 during the year. The decrease in Massachusetts was 129.

Of the periodicals devoted to the specialties the costs of publication exceeded the income by $10,471. Three of these, *Archives of Otolaryngology*, *of Ophthalmology*, and the *American Journal of Diseases of Children* produced incomes larger than the costs of publication. The *Quarterly Cumulative Index Medicus* was distributed to 116 less subscribers than in 1933. The loss incurred in publication was $44,709. The health monthly, *Hygeia*, was published at a loss of $30,127.

The President, Dr. Dean Lewis, addressed the House and in part spoke as follows:

"During these two years the educational opportunity has been great, for I have had the privilege of attending many national, state and county gatherings. I have never had greater pride in the medical fraternity for they have gladly assumed the responsibilities which they have been forced to meet during the depression. They have assumed these without complaint, and it is without any attempt at patronizing to say that I have known of no organization, either lay or professional, that has rendered such service without complaint. The health of the people has been maintained at a high level. Whether or not the profession is to be given entire credit for this may be a matter of dispute, for it seems that the wind is always tempered to the shorn lamb, for statistics which have been gathered for a number of years have shown that the mortality and morbidity during periods of depression are always low. Social workers apparently are not fully conversant with these facts for there is a tendency on their part to credit this state of health to their unremitting, untiring and self-sacrificing efforts to ameliorate suffering and prolong life, little realizing that Providence works in strange and wondrous ways.

. . . . . .

"These are changing times, however, and the medical profession has been accused from time to time of not keeping up with the social and economic advances. Our severest critics seem to fail to realize that at any and all times the medical profession has always been the vanguard of the troops which seek to prevent the development of disease and to care for it when it has once developed. The medical profession has no apologies or excuses to make, for cities could not have survived epidemics, international trade routes could not have been established, and the span of life would not have been long enough to justify the pangs of labor. It is sometimes a wonder to me why contraceptive measures were not discussed and introduced years ago when the span of life was so short that the futility of birth must have been frequently discussed.

"We should remember that it is easy to say that the people are not getting sufficient medical care, but how shall it be provided? Those who practice medicine are always being told how to do it, but those who criticise them have usually had no experience in doing it and couldn't do it at all if called on to do so. We have the right to be proud of our achievements and we can best meet every challenge directed at us by carrying on without fear and with vision."

The President-Elect, Dr. Walter L. Bierring, then spoke, in part, as follows:

"During my training year as President-Elect, I have been more and more impressed with the basic spirit of democracy that governs this association. With its ever-widening influence, scientific and professional, the sovereign right of the individual member still reigns supreme, and this representative body, the House of Delegates, continues as the arbiter of the destiny and policies of organized medicine in America.

"There are those without our Association who would speak with authority and much concern of our welfare regarding the solving of these problems. While we gladly listen for guidance from every available source, we are confident and deeply conscious of our ability to put our own house in order.

"With the evolution in technology, the development of industry and the political economic changes, modern society has come to expect a new order of medical service, different from that demanded a generation ago.

"In all time medical practice has influenced and gone hand in hand with the advancement of medical education. In this changing order you cannot therefore disassociate the one from the other, and with far-sighted wisdom you have already instituted through the Council on Medical Education and Hospitals a resurvey of all medical schools in the country.

"Your second problem is concerned with the changing order of medical practice. Well-meaning nonmedical advisers have brought to you a variety of artificial remedial plans that are supposed to

solve every phase of the problem. We well know that no single 'rule of thumb' proposal or method will provide the remedy. The rendering of efficient and complete medical service is still largely governed by the individualistic relation of physician to patient. Furthermore, the practice of medicine is a profession and not a business or trade.

"It is also recognized that the practice of medicine in the crowded areas of New England and along the Atlantic seaboard is far different from that required in the rural and agricultural sections of the Mississippi valley. Likewise the activities of the medical practitioner in the Southern states are not the same as those in the wide open spaces of the Dakotas and other Western states.

"It is sad to relate that mighty forces have been at work to sow seeds of discontent in the ranks of organized medicine and to destroy the faith in that leadership which is based on the sacred traditions of sacrifice and devotion to the ideals of medical service."

The Council on Medical Education and Hospitals reported that it was found for diplomatic and financial reasons impracticable to make a study and classification of foreign medical colleges, so a study was made of the number of Americans studying in Europe.

When it was learned that well over one thousand such students were enrolled in medical faculties abroad, the facts were brought to the attention of licensing bodies and a joint committee was created to deal with this problem. As a result of its negotiations and recommendations the Federation of State Boards of the United States and most individual state boards have adopted procedures designed to discourage students who are not acceptable to our own medical schools from migrating to other countries for their medical training with the expectation of returning to the United States to practice.

At the last session the House of Delegates called attention to the excessive number of applicants for admission to medical schools. It has been found that this condition exists in other professional fields as well. It is directly related to the enormous increase of college students since the war. Figures recently available show that the numbers enrolled in institutions of higher learning bear a ratio to the whole population in England of 1 to 1,150; in Scotland 1 to 455, and in the United States 1 to 125. The facts are being reported to college authorities in order that their students may be warned that admission to a college does not automatically guarantee admission to one of the professions.

During the past ten or fifteen years advances have been made in many phases of medical education. The time seems ripe for a comprehensive resurvey of medical education and with the generous support of the Board of Trustees such a study is now being undertaken.

During the year 1933, seven hundred and fifty-five hospitals were visited by members of the Council staff. The tuberculosis hospitals for the first time were included in the Council's routine survey.

The report concludes with the statement that with a daily average of 155,000 unoccupied beds in general hospitals it would seem to be unnecessary to invest more money at the present time in institutions of this sort.

At a business meeting of the Council, June 10, the appointment of a committee to appraise the aims and methods of education was adopted. Dr. Wilbur, Chairman, appointed as members: Reginald Fitz, chairman; Walter S. Leathers, Willard C. Rappelye, Rev. Alphonse M. Schwitalla, Dean Lewis and Harold Rypins.

In addition to the reports of officers and councils, during the sessions of the House forty-three resolutions were presented, from scientific sections three, from constituent associations through their delegates fourteen, from the Judicial Council two, and by delegates individually 24. One constituent association resolution was considered in executive session.

On several occasions the Canadian Medical Association has suggested a joint meeting of the American Medical Association and the Canadian Medical Association. On the recommendation of the Trustees of the American Medical Association and the approval of the Council on Scientific Assembly the House voted to invite the Canadian Association to participate in the scientific assembly at the 1935 meeting. This invitation has been accepted.

At the last session the following officers were elected:

President-Elect, James S. McLester, Birmingham, Alabama.

Vice-President, George G. Reinle, Oakland, California.

Secretary, Olin West, Chicago.

Treasurer, Herman L. Kretschmer, Chicago.

Speaker, Fred C. Warnshuis, Grand Rapids, Michigan.

Vice-Speaker, Nathan B. Van Etten, New York.

Trustee, Roger I. Lee, Boston.

Trustee, Allen H. Bunce, Atlanta, Georgia.

Your delegates would express their full appreciation of the honor of serving this oldest constituent association in the national medical council.

For the delegates,
EDMOND F. CODY.

SUBACUTE PICK'S DISEASE (POLYSEROSITIS) WITH POLYARTHRITIS AND GLOMERULONEPHRITIS

A Report of Two Fatal Cases*

BY MYRON J. TREMAINE, M.D.†

ONE occasionally encounters cases characterized by a long-continued fever, profound constitutional disturbances, polyarthritic symptoms, polyserositis, glomerulonephritis, a progressive secondary anemia, leucopenia and sterile blood cultures without the presence of endocarditis or Aschoff bodies in the myocardium. Two such cases are reported here.

CASE I. H. M. M., Med. No. 37729, a white female, aged 19 years, first entered the hospital in September, 1930, complaining of fever and pain in the chest.

The family history was irrelevant. Since the age of six years she had had recurrent attacks at infrequent intervals of a right middle ear infection. Her tonsils were removed at the age of nine years.

Since July, 1930, she had noted weakness and fatigue upon the slightest exertion. In September, 1930, she developed a fever, sore throat, cough, chills, sweats and generalized joint pains. After one week of these symptoms, the onset of sharp precordial pain caused her to seek medical attention.

Physical examination at admission revealed a well-developed and nourished girl with rapid respiration. The salient abnormal findings were a scarred and perforated right ear drum, an inflamed throat, signs of consolidation at the base of the left lung and tenderness of all the joints but no redness or swelling. The heart was apparently normal except for its rate of 120 beats per minute. The blood pressure was 118 systolic and 78 diastolic. No cutaneous rash, petechiae, enlarged lymph nodes or palpable spleen were observed.

The temperature was 103° F. Examination of the blood showed: hemoglobin (Sahli) 70 per cent; red blood cells 4,300,000 and white blood cells 8,000 per cubic millimeter; differential and smear normal; Wassermann and Hinton reactions negative. The urinary findings were normal.

A portable Roentgen-ray film of the chest, taken shortly after entrance, showed some consolidation of the left lower lobe and a small amount of fluid in both costophrenic angles.

During the latter part of September, 1930, the right pleural effusion increased in amount. A thoracentesis then yielded 650 cubic centimeters of fluid with a specific gravity of 1.016, and 650 cells per cubic millimeter, mostly lymphocytes. Guinea pigs were inoculated, but developed no tuberculosis.

In October, 1930, a non-pruritic, reddish-purple, maculopapular skin eruption appeared on the face, neck and behind the ears. There were also numerous vesicles on the hard palate and buccal mucosa. Within two weeks the rash had appeared on the upper chest, both in front and in back, the forearms, palms of the hands, legs and soles of the feet, and scaling was noted. The buccal lesions had become ulcerated and covered with a grayish white membrane from which a smear showed staphylococcus aureus, streptococcus viridans, monilia albicans and Vincent's organisms. The skin rash disappeared in December, 1930, leaving a dusky complexion but no scarring or atrophy. The mucosal lesions healed much more rapidly.

In November, 1930, a pericardial friction rub was heard and was present for several days before disappearing.

During the six months that she remained in the hospital there were frequent bouts of migrating joint pains. The heart was never found to be enlarged or the blood pressure elevated. Electrocardiograms showed left ventricular preponderance, delayed A-V conduction time and an abnormal form of ventricular complex. Repeat Roentgen-ray films showed a gradual to complete clearing of the lung fields, a disappearance of the pleural effusion and a heart not enlarged but with persistent fullness in the mitral region.

Throughout the first three months the temperature ran a swinging course, reaching 103° F. on many occasions; her weight fell from 144 to 88 pounds, and her anemia became more marked with a drop in the hemoglobin to 45 per cent (Sahli) and the number of red blood cells to 2,600,000 per cubic millimeter. During the latter half of her stay the temperature remained below 100° F., the weight increased to 101 pounds, the hemoglobin returned to its former level of 70 per cent (Sahli) and the number of erythrocytes to 4,100,000 per cubic millimeter. The leucocytes always numbered between 4,000 and 9,000 per cubic millimeter. The urine showed a normal variation in specific gravity, an occasional slightest possible trace of albumin by the nitric acid ring test and rare granular casts. There was no measurable impairment of renal function. Repeated blood cultures were sterile and agglutination tests for typhus and typhoid fever were negative. Gonorrheal complement fixation tests were twice positive and twice negative. The history was not suggestive of the disease and the pelvic examination was negative.

In April, 1931, she was discharged.

For six weeks following her return home her health improved, appetite increased, and there was a gain of ten pounds in weight.

Following a return of the same symptoms as noted before, she was re-admitted to the hospital in June, 1931. At that time the salient abnormal findings were emaciation, a pale, dusky purple complexion, an inflamed throat, a few carious teeth, generalized lymph gland enlargement and signs of a small amount of fluid in the left lower chest. Again the heart seemed to be normal except for a rate of 100 beats to the minute. The temperature was 100° F.

Stereoroentgenograms of the chest showed clouding at the base of the left lung behind the heart, suggesting fluid or thickened pleura, but the lungs otherwise were clear. In contrast to the previous findings, the heart was definitely enlarged to the left. Mitral fullness was present.

In June, 1931, several infected teeth were removed, after which there was no change in her condition.

She remained in the hospital fourteen months, during which time there were many remissions from and exacerbations of her symptoms and the same swinging temperature from normal to 103° F. was noted. Frequent roentgenographic examinations of the chest showed no further changes. The electrocardiographic findings, blood pressure readings, leucocyte count and urinary findings were essential-

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ly the same as found during her first stay in the hospital. There was no increase in the anemia or measurable impairment of renal function. Again repeated blood cultures were sterile, the agglutination tests for undulant and typhoid fever negative and the gonorrheal complement fixation reaction positive on one occasion and negative on another. The intracutaneous injection of old tuberculin in dilutions of 1-1000 and 1-10,000 produced no reaction. The agglutination test for streptococcus hemolyticus was negative. Meningococcus septicemia was considered, but the patient reacted so violently to the first desensitizing dose of anti-meningococcus serum that this treatment was not carried out. In April, 1932, there was an acute exacerbation of the right middle ear infection. Staphylococcus aureus was found both in cultures from the running ear and by direct smear. In August, 1932, even though there was a persistent afternoon rise of temperature to 99° F., she was discharged at her own request, to be cared for at home by her local physician.

She reëntered the hospital in August, 1933, complaining of the additional symptoms of backache, frequency, nocturia and occasional hematuria that had been present for the previous six months. The essential abnormal findings then were more marked emaciation and pallor, the dusky complexion, carious teeth, dullness and diminished breath sounds at both lung bases and generalized stiffness and tenderness of the joints. The heart, apparently, was displaced to the left and the pulmonary conus and left auricle seemed to be markedly enlarged. There was a rate of 98 beats to the minute, an apical gallop rhythm, a forceful systolic impact and an accentuated second sound at the pulmonic area. No murmurs were heard. The blood pressure was 116 systolic and 90 diastolic. The temperature was 101° F. Examination of the blood showed: hemoglobin (Sahli) 60 per cent; red blood cells 3,100,000 and white blood cells 9,000 per cubic millimeter. The urine showed a fixation in specific gravity around 1.010, a trace of albumin by the nitric acid ring test, numerous red and white blood cells and casts. The phenolsulphonephthalein excretion was now only 20 per cent in two hours and ten minutes. The blood chemistry determinations showed: total protein 5.3 grams per cent; albumin 1.7 grams per cent; globulin 3.6 grams per cent; urea nitrogen 52 milligrams per cent; cholesterol 95 milligrams per cent. Roentgen-ray films of the hands showed considerable atrophy of the ends of all the bones and some narrowing of all the joints, not characteristic of atrophic arthritis.

In September, 1933, one observer noted, for the first time, an inconstant diastolic murmur at the pulmonic area.

The following two months were characterized by increasing weakness and evidence of uremia as revealed by the laboratory and physical findings. There was a final elevation of the blood pressure to 150 systolic and 100 diastolic, a rise in the blood urea nitrogen to 150 milligrams per cent, a drop in the hemoglobin to 27 per cent (Sahli) and the number of erythrocytes to 1,300,000 per cubic millimeter. She died in December, 1933, three and a half years following the onset of her illness.

At autopsy the outstanding features were polyserositis, nephritis and the absence of rheumatic myocarditis or endocarditis.

The polyserositis was characterized by the following findings: an obliterative fibrous pericarditis with adherence of the pericardium to all of the surrounding structures; a fibrous pleuritis so extensive that the lungs were adherent to the parietal pleura over the greater part of their surface; fibrous adhesions which were most numerous in the upper abdomen where they completely embedded the liver, spleen and transverse colon and also involved various segments of the small and large intestines throughout the lower half of the abdominal cavity; inflammatory changes of the synovial membrane of the right knee joint.

The heart in situ seemed much enlarged, for its apex extended to the anterior axillary line, being bound down by the adhesions to the chest wall. Actually it weighed only 350 to 400 grams. The endocardium appeared to be normal and the valves competent.

Each of the kidneys weighed 200 grams. Coronal sections revealed a poorly defined renal architecture, a thin cortex measuring from 3 to 5 millimeters in thickness and normal pelves. The renal capsules were somewhat thickened and stripped from the kidneys with a slightly increased resistance, leaving a surface with many depressions and fissures measuring from 2 to 6 millimeters in diameter and numerous pin-point to pin-head sized petechial hemorrhages. In the cortex of each kidney was a small abscess measuring 3 to 4 millimeters in diameter.

The following histological observations were of interest:

Evidence of continuance of the infection was shown by the mild infiltrations with lymphocytes and plasma cells, and the occasional accumulations of polymorphonuclear leucocytes throughout the fibrous adhesions and by the presence of a few small fibrin masses and fibroblasts that were still laying down connective tissue.

No fibrosis or inflammatory changes were observed in the mural or valvular endocardium, nor was there any vascularization of the mitral valve. A careful search revealed no Aschoff bodies or typical rheumatic scars in the myocardium nor elsewhere.

The kidneys showed an extensive and severe destruction of an unusual type. Most of the glomeruli were involved in a process characterized by rare leucocytic infiltrations and all stages of fibrosis leading to frequent obliterations. The tubules draining them were also atrophic and collapsed. With these unit lesions there were heavy patchy infiltrations with polymorphonuclear leucocytes and lymphocytes, and a small amount of scarring. The patchy distribution of the lesions suggested that vascular changes were the primary cause of the kidney disease. Some arterioles showed fairly marked intimal fibrosis and diminution in calibre, but this sclerosis did not seem widespread enough to explain all of the parenchymal damage.

Studies of the right knee joint revealed hypertrophy of the synovial villi, perivascular infiltrations of inflammatory cells throughout the subsynovial and capsular tissues and a moderate amount of subperiosteal new bone formation that had not reached the proportions of lipping or the formation of osteophytes. Thus the findings were of a proliferative and inflammatory nature and similar to those of rheumatoid arthritis.

There was a terminal infection as shown by the presence of bronchopneumonia, pericholangitis, a right otitis media, the renal abscesses, and extensive destruction of blood with the deposition of hemosiderin pigment in the arachnoid, spleen, liver, kidneys, bone-marrow, and lymph nodes. Cultures from a renal abscess and the right middle ear yielded staphylococcus aureus.

The other incidental findings were sub- and extra-arachnoidal hemorrhages, focal necrosis of the liver, ascites, acute and chronic abdominal lymphadenopathy, and arteriolar thrombosis of the skin.

There was no evidence of tuberculosis.

Case II. C. I. B., Med. No. 44706, a white female, aged 32 years, first entered the hospital in Septem

ber, 1933, with the complaint of chest pain of two weeks' duration.

One sister and two cousins had suffered from chorea.

The past history revealed pneumonia in infancy, scarlet fever at the age of nine years, a tonsillectomy at twelve years, and influenza at twenty-three years. Since the age of twenty-five years she had had frequent attacks of typical Raynaud's disease of the hands and feet. Two years prior to this admission a small vesicle appeared on her face and subsequently broke, discharging fluid that caused similar lesions on the skin with which it came in contact. Other members of the family contracted a similar rash shortly thereafter. It disappeared rapidly under treatment and was diagnosed impetigo by the local physician.

Since March, 1933, she had noted shortness of breath and fatigue on climbing only one flight of stairs, hoarseness, occasional attacks of generalized joint pains, anorexia and a gradual loss of twenty-five pounds in weight. Then in September, 1933, two weeks of fever, sweats and dull aching pain in the left lower chest and supraclavicular region caused her to seek medical attention.

Physical examination on admission revealed a poorly nourished and developed Jewish female with hoarseness and rapid respirations. The essential abnormal findings were an inflamed throat, a few slightly enlarged, discrete, non-tender posterior cervical lymph nodes, signs of a small amount of fluid at the bases of both lungs and tenderness of all the joints but no redness or swelling. The heart which, apparently, was somewhat enlarged to the right and left, had a rate of 116 beats per minute, a regular rhythm and a soft blowing apical systolic murmur. A pericardial friction rub was present. The blood pressure was 105 systolic and 75 diastolic. No cutaneous rash, petechiae or palpable spleen were observed. The laryngoscopic and pelvic examinations revealed no important findings.

The temperature was 102° F. Examination of the blood showed: hemoglobin 80 per cent (Sahli); red blood cells 3,900,000 and white blood cells 9,000 per cubic millimeter; the differential and blood smear were normal. The urine showed a trace of albumin, a few erythrocytes and an occasional granular cast. The blood Wassermann and Hinton reactions were negative.

On the evening of admission a right thoracentesis yielded 75 cubic centimeters of fluid with a specific gravity 1.013, many endothelial cells and lymphocytes, a few polymorphonuclears and many red blood cells but no organisms. Guinea pigs were inoculated but developed no tuberculosis. The chemistry of the pleural fluid showed the total protein to be 2.6 grams per cent, albumin 1.2 grams per cent, globulin 1.4 grams per cent and the non-protein nitrogen 15 milligrams per cent. The chemistry of a fasting blood specimen drawn the morning following entrance revealed the following values: total protein 5.9 grams per cent, albumin 2.6 grams per cent, globulin 3.3 grams per cent, non-protein nitrogen 23 milligrams per cent, blood urea nitrogen 10 milligrams per cent and cholesterol 160 milligrams per cent.

Stereoroentgenograms of the chest made the day following admission showed a small amount of fluid in both costophrenic angles and somewhat congested lungs with no evidence of tuberculosis. The heart was definitely enlarged to the left and right and had a globular outline suggesting a pericardial effusion.

Throughout the four months that she remained in the hospital there were frequent bouts of fever, chills and joint pains. The physical signs of a small amount of fluid at the bases of both lungs and of consolidation at the inferior angle of the left scapula were usually present. The heart did not seem to grow larger, and no elevation of blood pressure was noted. Electrocardiograms showed normal curves. Repeated Roentgen-ray films of the chest revealed the same findings as before, but the globular outline of the heart was no longer thought to be due to a pericardial effusion. On one occasion a pleural friction rub was heard. The fever always responded to treatment with salicylates.

During this stay the temperature ran a swinging course up to 100 and 103° F., and there was a further loss of twenty pounds in weight. The hemoglobin, erythrocyte and leucocyte counts and urinary findings remained essentially the same as at the time of admission. Renal function tests were normal. Repeated blood cultures were sterile, and tubercle bacilli were never found in the sputum or urine. Agglutination tests for typhus and typhoid fever were negative. In December, 1933, she became very tired of the hospital régime, and, though her condition was unimproved, was permitted to return home to be under the care of her family and local physician.

In February, 1934, she was seized with a severe attack of diffuse abdominal pain, accompanied by nausea, vomiting and diarrhea, and requiring a hypodermic injection. For three days thereafter she remained in a semicomatose condition, and then swelling of the ankles was noted. In March, 1934, a similar attack occurred, following which she suffered with frequent headaches, oliguria, nocturia and marked swelling of the legs and abdomen until the time of her re-admission to the hospital in April, 1934.

The salient abnormal findings then were pronounced emaciation and pallor, cyanosis of the lips, fingers and toes, bilateral hydrothorax, ascites and massive pitting edema of the left breast, both arms and the lower half of the body. There was a skin abrasion over the left leg from which fluid was oozing. The blood pressure was 112 systolic and 76 diastolic. The heart had a rate of 110 beats per minute and a regular rhythm and was definitely enlarged or displaced to the left. A pulsation was felt in the pulmonic area, but no thrill or murmurs were made out.

The temperature was normal. Examination of the blood showed: hemoglobin (Sahli) 40 per cent; red blood cells 2,200,000 and white blood cells 8,000 per cubic millimeter; differential normal. The urine showed a trace of albumin by the nitric acid ring test, a few pus cells, an occasional erythrocyte and numerous hyaline, granular and cellular casts. The blood chemistry determination was as follows: total protein 4.1 grams per cent; albumin 1.0 grams per cent; globulin 3.1 grams per cent; urea nitrogen 15 milligrams per cent; cholesterol 140 milligrams per cent; sodium chloride 560 milligrams per cent.

On the day of this admission a right thoracentesis yielded 350 cubic centimeters of fluid that clotted spontaneously on standing. A guinea pig was inoculated, but developed no tuberculosis.

The following three weeks were characterized by increasing weakness and a rise in the leucocyte count to 20,000 per cubic millimeter, but there were no other important developments. She died in April, 1934, one year after the onset of her illness.

At autopsy the important features, again, were polyserositis, nephritis, and lack of evidence of rheumatic heart disease.

Fibrous adhesions obliterated the pericardial sac and were extensive throughout both pleural cavities and the upper abdomen where they completely embedded the liver, the spleen and the stomach. However, the adhesive process was not so old or widespread as in the preceding case. Furthermore, the

synovia of the right knee joint showed no inflammatory changes.

The heart weighed 300 grams. The endocardium appeared normal and the valves competent.

The right kidney weighed 160 grams, the left 180 grams. Coronal sections showed a distinct renal architecture and a cortex of normal thickness. Many of the glomeruli and tubules had an opaque appearance. The capsules stripped with ease, leaving the renal surface with a few fine granular markings but no deep scars.

The pancreas weighed 100 grams. Scattered about its surface and in some of the adjacent fat there were small discrete, yellowish areas of fat necrosis. No associated hemorrhage was found.

The important histological findings were as follows:

Lymphocytes, plasma cells and a few eosinophiles were scattered diffusely throughout the fibrous adhesions which consisted of connective tissue of varying density.

The kidneys presented lesions of an unusual character. The majority of the glomeruli were damaged, but only one or two were found to be completely hyalinized. The process involved the cells of the endothelium which were swollen and surrounded by delicate hyaline deposits. Bowman's capsule seldom showed proliferation. Many of the tubules revealed fine fat droplets within the epithelial cells and hyaline deposits about their basement membranes. Casts were practically absent. The larger and smaller blood vessels, including the pre-glomerular arterioles, showed no changes. There was no increase in connective tissue or evidence of any acute inflammatory reaction.

Throughout the pancreas there was an increase in the inter-acinar and inter-lobular connective tissue in the meshes of which large numbers of lymphocytes and plasma cells and a few polymorphonuclear leucocytes were observed. The walls of the ducts were composed of dense fibrous tissue also infiltrated by inflammatory cells. The blood vessels revealed no alterations in calibre. The areas of fat necrosis and the absence of hemorrhage were mentioned above.

Other findings at necropsy were acute bronchopneumonia, bilateral hydrothorax, ascites, fatty infiltration of the liver, focal degeneration of the anterior lobe of the pituitary, acute lymphadenitis, hemosiderosis of the spleen, and an old healed tuberculosis of the mesenteric lymph nodes. There was no evidence of an acid-fast infection elsewhere.

COMMENT

The analysis of these cases brings out the following striking characteristics common to both of them:

The patients were white adult females, nineteen years and thirty-two years old respectively, with a past history of disease that often precedes the onset of rheumatic fever. The clinical syndrome was characterized by a prolonged fever of the septic type, a progressive loss of weight and frequent bouts of sore throat, chills, sweats and generalized joint pains. The salient abnormal findings included evidence of pericarditis, pleuritis and patchy pulmonary consolidation, lymphadenopathy and tenderness of the joints. The heart seemed to increase in size as the disease progressed and had a rapid action but no apparent valvular defects. Case I presented a skin lesion suggestive of acute disseminated lupus erythematosus, whereas case II suffered from impetigo of the face two years before coming under observation. No petechiae or palpable spleen were observed. The findings of a severe nephritis overshadowed all others toward the terminal stages of the illness. Case II developed the nephrotic type, characterized by massive edema, ascites, a normal blood pressure, a reversal of the albumin-globulin ratio and a normal value for the blood urea nitrogen. Case I developed uremia. Sterile blood cultures, a progressive secondary anemia and a normal leucocyte count were constant findings. All serological tests were negative except for the gonorrheal complement fixation reaction of one patient that was found to be alternately positive and negative on different occasions. The duration of the disease in case I was three and a half years, in case II, one year.

The postmortem findings were those of an infectious process of widespread distribution. The serous surfaces of the pericardial, pleural and peritoneal cavities revealed old but still active inflammatory changes with diffuse fibrous adhesions. No demonstrable cardiac enlargement, valvular lesions or evidence of rheumatic infection were present. The more advanced appearance and wider distribution of the lesions of case I in contrast to case II might well be due to the longer duration of the disease. In the former even the synovial membranes showed inflammatory changes, and the kidney damage had progressed to the point of complete obliteration of many whole renal units. In the latter it is likely that the bronchopneumonia caused an early termination of the process before these changes could develop.

The symptoms and findings shown in these two patients have been regarded by some as manifestations of atypical rheumatic fever while others would not accept the term, "atypical rheumatic fever". Our present knowledge concerning the clinical features and pathologic anatomy of rheumatic infection has been presented admirably by Klinge[1] (1933) and needs no further discussion here. That glomerulonephritis occurs but rarely in rheumatic fever has been emphasized by Baehr and Sacks[2] in 1923. In 1931 Baehr[3] reported a series of 235 patients with rheumatic valvular disease in which glomerulonephritis was encountered only three times, and in two of these it was shown to be an incidental finding. On the other hand, the considerable frequency of glomerulonephritis was noted in cases of subacute bacterial endocarditis, observed during the bacteria free stage of the disease. Recently, Blaisdell[4] made a pathological study of the kidney lesions in several cases of rheumatic fever and reported the frequent occurrence of perivascular inflammatory lesions of an acute non-suppurative type,

affecting the smaller arteries and arterioles and bearing a close resemblance to the Aschoff bodies that usually were found in the myocardium. The inflammatory reaction was observed in the adventitial and periadventitial tissues, but occasionally the media was involved. The intimal changes, characterized by swelling and proliferation, were inconstant. In only one case was there pronounced glomerular damage, and this he considered as secondary to the vascular changes. The glomeruli usually were not affected by the process. He seldom noted sufficient alteration in structure to justify a diagnosis of renal disease during life. It seems evident then that nephritis is rare in rheumatic fever, and in this respect the two patients here reported are unlike rheumatic fever, since both died as the result of nephritic lesions.

A form of verrucous endocarditis which seemed to be distinguishable from the true rheumatic type by the coarser character of the verruci, their irregular distribution, the tendency to involve the endocardium of the ventricle and other characteristics, was first described and tentatively called "indeterminate endocarditis" by Libman[5] in 1917. In 1923 Libman and Sacks[6] reported four such cases with a distinctive clinical picture. In addition to a long febrile course, manifestations of endocarditis, negative blood cultures and progressive debility, these patients presented petechiae, shallow ulcers of the palate with congested and hemorrhagic margins, arthritis, embolic (or thrombotic) phenomena in the viscera, evidences of glomerulonephritis, and at times, purpuric lesions on the skin and mucous membranes. In other words, they showed a variety of symptoms in part characteristic of rheumatic fever, in part resembling subacute bacterial endocarditis, in association with other symptoms which were characteristic of neither. In 1931 Baehr[3] made a study of seventeen cases of this disease, including the original four reported by Libman and Sacks. His pathologic observations demonstrated that the endocarditis was only a local expression of a widespread toxic or infectious damage affecting the endothelium of capillaries and small vessels of the skin, the kidneys and various organs of the body. The endothelial changes were those of swelling, active proliferation and necrosis. The lumen of the affected vessels was often partially or completely occluded by a mixture of proliferated and disintegrating endothelial cells and thrombotic material. The renal picture usually resembled glomerulonephritis. In none of the cases were Aschoff bodies found in the myocardium. Two examples of this disease were observed by Baehr in which the valvular endocardium was uninvolved, proving that the endocarditis was not an essential factor. These two had close resemblance to the cases here described; Baehr did not regard them as rheumatic fever.

Some of the clinical features of the cases reported here are suggestive of periarteritis nodosa, but this type of vascular lesion was not present in these patients. It is interesting, however, that there seems to be a relationship between periarteritis nodosa and rheumatic fever; very recently this relationship has been discussed by Friedberg and Gross[7] under the title "periarteritis nodosa (necrotizing arteritis) associated with rheumatic heart disease, with a note on abdominal rheumatism" in reporting four patients with widespread periarteritis nodosa in whom there was rheumatic heart disease confirmed by the finding of Aschoff bodies in the myocardium; possibly some of those without Aschoff bodies being demonstrated were the result of rheumatic fever; at least, that claim has been made.

Pick in 1896[8] described a syndrome in which the most prominent feature was adhesive pericarditis; in some of his patients tuberculosis evidently was the cause, but in most no definite etiology could be made out; there was no evidence that rheumatic fever was the cause. These two patients here reported in their widespread, non-specific inflammation of serous surfaces might be grouped here.

These various conditions raise the question as to whether the presence of Aschoff bodies are necessary findings to permit the diagnosis, rheumatic fever. If they are, then these two cases are not to be classified as rheumatic fever; if not, and there is considerable evidence in favor of this, they may be regarded as a form of rheumatic fever, atypical rheumatic fever.

Clinically and pathologically speaking, the disease suffered by the patients here described bears much resemblance to many reported cases of acute disseminated lupus erythematosus. One of our patients developed a skin rash suggestive of this condition, although it was of short duration and did not progress to the usual scarring or atrophy. On the other hand, in reviewing the literature on lupus erythematosus, one notes that the cutaneous manifestations are extremely variable in type, extent and duration; Baehr's patients had lesions suggestive of lupus erythematosus.

These cases are extremely interesting from the viewpoint of terminology. As already has been discussed, there are resemblances to a number of conditions, all types of infectious diseases of undetermined etiology. On the whole they have perhaps the closest analogy to rheumatic fever even though at autopsy no Aschoff bodies could be demonstrated, and so they might be regarded as atypical forms of rheumatic fever and called atypical rheumatic fever. Since inflammation of the serous surfaces was so prominent,

they may be named, subacute Pick's disease (polyserositis) with polyarthritis and glomerulonephritis. As, for the present, Aschoff bodies seem to be considered by so many to be necessary to the diagnosis, rheumatic fever, perhaps it is wiser to group these two patients as a form of Pick's disease. Whatever called, the condition should be recognized during life because of the polyarthritis symptoms, the polyserositis and the eventual glomerulonephritis.

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THE OPERATIVE RELIEF OF EXTENSIVE CICATRIZATION OF THE MALE URETHRA AND PERINEUM*

BY J. DELLINGER BARNEY, M.D.†

ALTHOUGH unable to substantiate my belief by statistics, I feel sure that stricture of the male urethra due to gonorrhea, with or without the complication of periurethral abscess, is seen much less frequently to-day than it was twenty or thirty years ago. This is due first, to the faint possibility that gonorrhea is decreasing, and secondly, to the strong probability that the disease is being seen earlier and treated more efficiently. In spite of this the urologist not infrequently sees cases which present a most deplorable condition. The following description gives a fairly accurate composite picture.

The patient has usually reached or passed middle life. He gives a history of multiple attacks of gonorrhea dating from early youth, none of them adequately treated, none of them really cured. One or more of the infections have been attended with complications such as epididymitis, prostatic abscess or periurethral abscess, and followed by a stricture. Frequent or unskilled instrumentation has produced pockets and false passages in the urethra. Urethrotomy, internal or external, may have been performed on one or more occasions. Even though advised that he must have regular and fairly frequent dilatation of the urethra the patient has neglected to have it done. The stricture has closed down, periurethral abscess has developed, and a sinus has formed either because of spontaneous rupture or because the unsuspecting surgeon has drained only the abscess without at the same time dilating or dividing the stricture. In some cases abscess with resulting fistula has occurred along the course of the pendulous portion of the urethra. As a result of all this the patient presents a more or less perfect picture of "watering pot" perineum, with multiple sinuses from which there leaks either urine or thin, foul pus. Coexistent with this condition there may be ancient or recent multiple abscesses and masses of scar tissue. The urinary stream is conspicuous either by its absence, its small size, or its multiple points of exit. The urine is foul and thick with pus and mucus. The bladder is often greatly overdistended, and the patient toxic and dehydrated. He usually gives a history of numerous operations by surgeons of varying degrees of skill.

Attempts at instrumentation either fail entirely, or the bougies enter nothing but false passages. Calibration of the urethra, if this is possible, shows multiple strictures from meatus to bladder. All attempts at gradual dilatation fail, and even a subsequent urethrotomy may show that the entire urethral mucosa has been largely replaced by dense scar tissue. Further investigation may show that one or more of the perineal abscesses or sinuses originate from a fistula in ano which has chosen an unusual point of exit.

When confronted with such a problem the urologist may find himself in a dilemma. His natural instinct is to attempt to lay open sinuses, incise and drain abscesses, remove scar tissue and dilate or divide strictures. Nor is it an unjustifiable procedure to attempt this in some instances, for I have known it to succeed to the point where the patient was made and continued to be (with frequent dilatations of the urethra) surprisingly comfortable. On the other hand experience has shown that in many cases, while much can be done in the way of abolishing sinuses, these in themselves being the source of great discomfort, it is futile to even attempt a restoration of the lumen of the urethra. In these instances more radical procedures must be adopted. I refer to (a) a permanent suprapubic drainage, (b) implantation

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of the urethra in the perineum, and (c) to uretero-enterostomy. The indications for these three procedures vary with each case, and must be adopted only after it has been determined by careful investigation, operative if necessary, that there is no hope of restoring the urethra to a reasonable degree of integrity.

The patient is more often than not a poor surgical risk, and it is therefore imperative that before any extensive operation is undertaken he should be carefully studied and prepared. This includes estimations of blood chemistry, and an examination of the blood smear. It also involves both flat plates of the urinary tract and an intravenous pyelogram. This may show dilatation of kidneys and ureters as a result of the long-continued back pressure from the stricture. Nor should one forget the importance of a thorough emptying of the bowels by catharsis and enemata. If, as is often the case, more or less complete retention of urine is present, this must be overcome by urethral drainage, where this is possible, or by suprapubic cystotomy when urethral instrumentation fails. While this is perhaps the most important step, the urinary output must be increased by the administration of large quantities of fluid (100 to 150 ounces daily) in the form of water by mouth or of glucose solution by the intravenous route.

If, at the outset, it has been necessary to do a suprapubic cystotomy, this type of drainage can be left as a permanent measure if it is clear that the urethra cannot be restored and that the patient cannot stand more radical procedures. The condition of the perineum can be subsequently improved by the curetting of sinuses and the drainage of abscesses. If properly cared for, he can continue a life which involves considerable physical activity for an indefinite time.

Such a case is illustrated by a man of seventy, a farmer, who came under my care some time ago. He had suffered for years with a stricture resulting from an old gonorrhea. Finally, acute retention intervened. Another surgeon who saw him at this time was unable to pass any sort of an instrument through the urethra. Suprapubic cystotomy was done and an attempt at retrograde catheterization made. Although a catheter was finally passed out through the urethra, the rectum was in some way injured with resulting recto-urethral fistula. This fortunately closed spontaneously. Various attempts at a later time to pass bougies through the stricture failed, and the patient was allowed to keep on with his suprapubic drainage. As a result of this drainage he was in very fair condition when he came into my hands. The urethral strictures were so small and tortuous that it was impossible not only to pass any sort of an instrument but also even a urethrogram failed. The perineum was extensively cicatrized. Intravenous pyelography showed both kidneys to be quite normal. The situation was explained to the patient who was told that nothing further could be done about his urethra, not only because of the impassable stricture but also because the previous urethro-rectal fistula would undoubtedly make it difficult or impossible to transplant the bulbous urethra into the perineum. Ureteroenterostomy was not advised. The suprapubic fistula was therefore fitted with a Number 34 open-end mushroom catheter, through which the urine drained by day into a rubber urinal attached to the patient's leg, and by night into a large bottle alongside the bed. The patient is comfortable and philosophical and goes about his work as usual.

When suprapubic drainage has been decided upon as an emergency measure, as in the case just recited, some remark as to its technic may be made. In my judgment aspiration of the bladder with a trochar is not without its danger even in skilled hands. There is always the possibility of entering the abdominal cavity. Even if this is avoided, I have seen in operating on such cases following paracentesis, leakage of urine from the bladder into the prevesical space, the loose connective tissue and the fat being thoroughly infiltrated. It is easy to see how perivesical infection might well occur and add this complication to the picture. Therefore whenever possible it is far safer and far better surgery to do a suprapubic cystotomy in the usual manner, using local novocain anesthesia and inserting either a tube or a catheter for drainage. In this way contamination of the prevesical space is avoided.

While this method of drainage is quite adequate it has certain obvious disadvantages. When therefore it is possible I prefer to transplant the urethra into the perineum. This can be done quite readily *provided*, and this is most important, that the stricture does not involve the entire bulbous portion of the urethra. Advantage can then be taken of the fact that the urethra *behind* the stricture is dilated, often to a considerable degree, and that by careful dissection it can be freed from the corpora cavernosa and other attachments and brought out without tension until it lies in the posterior angle of a median perineal incision. The loose tissue surrounding the urethra is then sutured to the edges of the skin incision. A soft rubber catheter is then passed to the bladder through this orifice and kept in place for several days. Eventually retraction and shrinkage of the stump of the urethra take place until finally it presents only as a button of mucous membrane where it emerges through the skin. If this procedure is properly carried out, which means the avoidance of all tension and the suture of the urethra to the skin, such a perineal urethra will stay open indefinitely without any instrumenta-

tion. If, however, the urethral mucosa retracts beneath the skin, a most troublesome stricture will result. Having performed this step of the operation, sinuses, abscesses and masses of scar tissue can be taken care of in the usual manner, either at the same or at a subsequent sitting. Needless to say the patient must necessarily void in the squatting position, but the gratification of being able to pass a good stream comfortably more than compensates for this drawback. If the external sphincter has not been injured, urinary control is perfectly normal.

Several patients on whom I have performed such an operation come to mind. One will illustrate the point. He was a Jewish storekeeper in his early forties. He had had many attacks of gonorrhea accompanied or followed either by prostatic abscess, periurethral abscess or residual sinuses. There was a large fistula in the penile urethra. Beyond this point it was possible to pass only filiform bougies. Gradual dilatation met with no results. It was then decided to divide the multiple strictures, some by internal, others by external perineal urethrotomy. At the same time a very elaborate and apparently efficient plastic operation was done for the closure of the fistula in the penile portion of the urethra. Recovery was long drawn out and at the end it was found not only that the strictures were again almost impassable in spite of every effort to keep them open, but also that the urethral fistula had not remained closed. Following this the patient developed pyonephrosis, and nephrectomy was performed. By this time urination was accomplished with the utmost difficulty, most of the urine making its exit through the fistula in the pendulous urethra. It was then decided to implant the urethra in the perineum and this procedure was carried out. Unfortunately the bulbous urethra could not be mobilized to a sufficient degree to allow of its implantation without some tension. As a consequence it eventually retracted beneath the skin to the extent that the orifice has to be dilated at frequent intervals. In spite of this the patient is in good condition and infinitely happier than he was at the time I first saw him.

Another patient, now an old man, suffering from a most extensive and almost complete atresia of the urethra, had such a perineal implantation of the urethra almost twenty years ago. All this time he has been in good health and perfectly comfortable, the fistula requiring little or no attention.

If and when possible of performance, I regard this method as the one of election for the relief of these wretched patients. It is comparatively simple, relatively free from danger, and gives satisfactory and permanent results.

The third method mentioned for the relief of the conditions under discussion is ureteroenterostomy. While not without its dangers and although technically difficult of performance, it can certainly give complete satisfaction. Thanks to the late Dr. Robert C. Coffey we have three different technics available, his second or tube technic being the most satisfactory of the three. More recently Higgins of Cleveland has described still another and even safer method of transplanting the ureters into the rectum.

Before undertaking any of these operations, experience has shown that it is extremely important to determine the integrity of the kidneys and of the ureters. In the event that the latter are appreciably dilated or the kidneys badly infected, the idea of an anastomosis had better be abandoned. With a young patient in good condition, I believe it offers by far the most satisfactory solution of the problem.

Such a case came under my care about three years ago. The picture presented was about like that already described. The patient was utterly miserable, there being practically no control of urination, the bladder contracted to a marked degree, and the perineum riddled with sinuses. He had had several operations by different surgeons but without relief. I, in a spirit of optimism, attempted to improve the situation and did succeed in abolishing certain sinuses, but did not succeed in reconstructing the urethra. The patient then readily assented to uretero-enterostomy. This was performed without difficulty using Coffey's technic Number 2. The patient made a good recovery. He has to urinate only three or four times a day and can sleep almost all night. His general condition has improved to a marked degree, he has gained weight and strength, and he can do his work. His only difficulty is that there is considerable nocturnal incontinence. This feature has been carefully investigated, no demonstrable cause being found. All of us who have examined him have felt that the anal sphincter was either injured at some previous operation or that it is involved by the extensive scar tissue which is present. More recently, however, another possible cause has been found in the form of two fistulae in ano which take origin from well within the anus and have recently burrowed to a point on the outer aspect of the buttock. This required the incision and drainage of an abscess and the opening and curetting of a sinus tract which led directly into the lower rectum. While in the usual case this fistula could probably be treated and cured by division and curettage, such a procedure has been considered unwise in this instance lest it might still further aggravate the incontinence. This complication is mentioned because of its unusual nature and because

it illustrates the bizarre possibilities of a fistula in ano.

While no claim is made for originality in any of the procedures discussed, I feel, after seeing so many of these wretched and apparently hopeless cases, that the possibilities of bringing relief should be more widely appreciated. Nor is there any reason for a patient to be denied relief on the grounds of a too difficult or extensive operation, except perhaps in the event of uretero-enterostomy.

It matters not that the urethra was intended among other things as a conduit for urine. If it cannot be made efficiently and permanently patent and if at the same time urine finds its way out by devious courses, it seems to me only proper that some artificial but comfortable exit for it should be established.

PHRENIC NEURECTOMY IN PULMONARY TUBERCULOSIS*

The Evaluation of Early Effects

BY HUGH F. HARE, M.D.,† AND LOWREY P. DAVENPORT, M.D.†

IN the treatment of pulmonary tuberculosis many factors must be considered in determining the final result of any therapeutic effort. The reports following the application of phrenic neurectomy with regard to the status of the patient from one to five years after operation are confusing, and may lead to misinterpretation of the effectiveness of this procedure. The purpose of this study is to analyze the effect of phrenic neurectomy and to show that this effect both clinically and roentgenologically may be evaluated within six months after operation.

Felix[1] in 1922, demonstrated the anatomical reasons for the previous failures to obtain lasting paralysis of the diaphragm. Avulsion of the phrenic nerve advocated by him gave such an impetus to the procedure that in 1930 Berry[2] was able to collect 4,697 cases of phrenic neurectomy from the literature of the preceding five years. Most of the reported cases have dealt with the late results following the operation. Naegeli and Schulte-Tigges[3] have recently suggested that the results of phrenic neurectomy should be analyzed from two to three months after operation. They state that of their two hundred and six cases, those that showed any improvement at all showed signs of manifest improvement within three months after operation. From the tables of Nehil and Alexander[4] one may derive that 67 per cent of one hundred and seventeen cases showed improvement within one year following operation, and that 71 per cent of one hundred and seventy-nine cases showed varying degrees of improvement one to three years later. In May, 1934 Alexander[5] reports that 90 per cent of the cases operated upon in his clinic have the temporary type of operation. He believes that the value of this procedure can be estimated within a six months' period and subsequent permanent paralysis may be carried out if necessary. When the probable end results of the procedure are so evaluated, the cases failing to show improvement may be given the advantage of additional surgical treatment where indicated.

PLAN OF STUDY

During the past two years eighty-three cases of phrenic neurectomy have been performed at Middlesex County Sanatorium, consisting of fifty-four of the permanent and twenty-nine of the temporary type. The entire group was analyzed from the clinical (L.F.D.) and roentgenological (H.F.H.) standpoint separately. The conclusions as to the benefit of the operation were derived independently and in only two cases was there any disagreement as to the value of the procedure by either of these two methods.

Clinically the degree of improvement was determined by the improvement in constitutional symptoms, the decrease in amount, and the disappearance of tubercle bacilli from the sputum. The change in physical signs, while difficult to evaluate following paralysis and rise of the diaphragm, has been included.

Roentgenologically the improvement was determined by the improvement in constitutional and retrogression of existing disease. An improved method of measuring the rise of the diaphragm was used in an attempt to correlate the degree of rise with the degree of improvement. The resulting fixation of the diaphragm was compared in the permanent and temporary paralysis by fluoroscopic observation.

The method of determining the rise of the diaphragm was as follows: A vertical line was drawn from the spinous process of the first dorsal vertebra to the twelfth dorsal vertebra; horizontal lines were drawn at right angles to this, one through the upper margin of the transverse process of the first dorsal vertebra on the affected side and the other through the highest point of the diaphragm on the same side; the distance between these two horizontal lines in centimeters, as measured on the vertical line before and after operation, was used to determine the degree of rise of the diaphragm.

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The average rise of the diaphragm is shown in the following tables:

	Right	Left
Temporary Paralysis	3.4 cm.	2.6 cm.
Permanent Paralysis	3.7 cm.	3.6 cm.

Sixty-nine cases were fluoroscoped at varying intervals after operation. All measurements of motion in the temporary paralyses were done within six months following operation. The results are as follows:

MOTION OF THE DIAPHRAGM

	Total	Paradoxical Motion	No Motion	Showing Motion	Not Visible
Temporary	26	4	2	19	1
Permanent	43	23	7	9	4

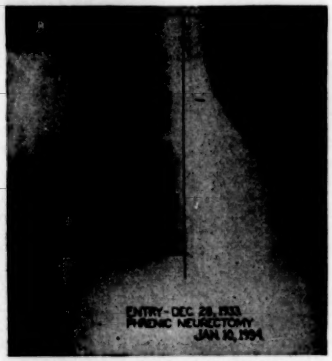
Nineteen temporary showing motion averaged 2.6 cm.

Nine permanent showing motion averaged 2.9 cm.

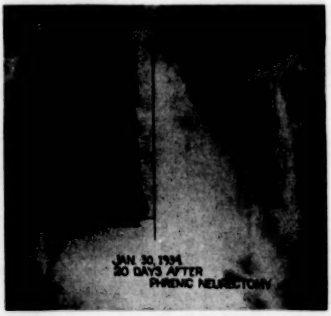
While we believe that the degree of rise of the diaphragm has no direct causal relationship to the degree of improvement, actual results are as follows:

AVERAGE RISE OF THE DIAPHRAGM

In Arrested Cases	In Improved Cases	In Unimproved Cases
4.3 cm.	4.5 cm.	2.8 cm.

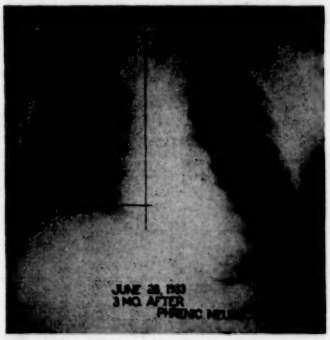


CASE 1. FIG. 1. Right hilum cavitation two months' duration.



CASE 1. FIG. 2. Same case showing cavity closed two months following phrenic neurectomy.

CASE 2. FIG. 1. Exudative tuberculosis involving upper half right lung without cavitation.



CASE 2. FIG. 2. Same case showing definite retrogression three months after phrenic neurectomy.

It is obvious, however, that in extensive disease with numerous pleural and particularly basal adhesions the rise of the diaphragm is impeded, and it is in those cases particularly where the outlook is unfavorable with or without phrenic neurectomy. We have seen one case where an excellent rise of the diaphragm (9.0 cm.) was without effect in reducing the size of an apical cavity.

We believe with Naegeli and Schulte-Tigges[3] that those cases showing improvement will manifest such a trend within a very few months

after operation. A comparison of serial roentgenograms in our own cases showed that of the thirty-three in which any retrogression was found, thirty-one gave evidence of retrogression within six months. Of these thirty-one cases, twenty-three showed improvement within the first three months, and three of these within the first two weeks after operation. Seven additional cases showed improvement within five months, and one in the sixth month of diaphragmatic paralysis. In one case the patient's general condition was so markedly improved that the diaphragm was permanently paralyzed five months after a temporary operation, although roentgenological evidence of retrogression did not appear until five months later. The second case in which improvement was delayed beyond six months was complicated by a partial pneumothorax abandoned two months after operation.

The majority of those cases which show marked improvement initially, but in which the final result is unsatisfactory, have had a spread of disease in the contralateral lung. Such complications cannot be cited as failures of phrenic neurectomy, nor, on the other hand, can patients with diaphragmatic paralysis supplemented by long periods of rest be classified as

TABLE 1.

TEMPORARY PHRENIC NEURECTOMIES

GROUP	Total Cases	CLINICAL TYPE: Minimal	Mod. Adv.	Far Adv.	CLINICAL X-RAY TYPE: Productive	Exudative	Mixed	SIZE: Right	Left	BACILLARY SPUTUM: Before	After	Cases with Decreased Sputum	Number Improved Physical Signs	Number Improved with General Condition	Average Cm. Rise of Diaphragm: R	L	Closure of Cavity: Partial	Complete	X-Ray Effect: Improvement	Progression	RESULT: Arrested	Improved	Unimproved	REMARKS
UNILATERAL UPPER LOBE CAVITATION	14	–	4	10	8	2	4	7	7	10	9	5	1	4	3.0	1.6	–	2	3	1	–	4	10	2 Cases Supplementary to Pneumothorax
BILATERAL UPPER LOBE CAVITATION	5	–	–	5	3	2	–	–	5	4	4	2	1	1	–	3.6	3	–	3	–	–	3	2	1 Case Supplementary to Pneumothorax
UPPER LOBE DISEASE WITHOUT CAVITATION	3	–	3	–	–	3	–	2	1	3	1	2	2	2	2.3	3.8	–	–	3	–	2	1	–	
BILATERAL DISEASE WITH MIDDLE LOWER (OR BOTH) CAVITATION	1	–	1	–	1	–	–	1	–	1	1	–	–	–	–	2.2	–	–	1	1	–	–	1	
UNILATERAL WITH UPPER AND MIDDLE OR LOWER LOBE CAVITATION	3	–	3	–	3	–	–	2	1	3	2	1	–	1	6.8	2.2	1	1	1	–	–	1	2	
MIDDLE OR LOWER LOBE CAVITATION UNCOMPLICATED	3	1	2	–	2	–	2	2	1	3	2	1	3	3	2.5	3.8	1	2	3	–	–	3	–	
TOTAL	29	6	21	8	12	9	6	13	16	24	19	11	7	11	3.4	2.6	5	5	13	2	2	12	15	

having been improved by the operation alone. It may be offered as an objection that the efficacy of therapy in pulmonary tuberculosis cannot be determined within six months. Although this argument is valid, the converse is not true for we believe that the failure of operative treatment can and should be predicted within such a time interval. Certainly few of those cases where improvement is not manifest initially will show improvement later. In our series of those cases operated upon between December, 1931 and November, 1932 only 33 per cent can be classified at present as having shown any benefit from the operation. Between November, 1932 and June, 1933 twelve cases, or 50 per cent, have shown definite benefit. Of the later cases operated upon between June, 1933 and December, 1933 43 per cent have improved.

The complete findings of the whole series are shown on tables 1 and 2. Of the entire group thirty-three cases, or 39.8 per cent, showed improvement, and of these six, or 7.2 per cent, are classified as arrested. A certain percentage of those cases showing improvement may later fall into the arrested group. All of those cases where the operation was done as a preliminary

TABLE 2.

PERMANENT PHRENIC NEURECTOMIES

GROUP	Total Cases	CLINICAL TYPE: Minimal	Mod. Adv.	Far Adv.	X-RAY TYPE: Productive	Exudative	Mixed	SIDE: Right	Left	BACILLARY SPUTUM: Before	After	Cases with Definite Cavity Closed on Operating Table	Number Improved Physical Signs	Number Improved Gen. Condition	Average Cm. Rise of Diaphragm: R	L	Closure of Cavity: Partial	Complete	X-Ray Effect: Regressive	Progressive	RESULT: Arrested	Improved	Unimproved	REMARKS
UNILATERAL UPPER LOBE CAVITATION	22	-	2	20	10	-	12	8	14	21	19	6	4	7	3.9	3.6	7	1	5	1	1	5	17	1 Case Subsequent to Thoracoplasty.
BILATERAL UPPER LOBE CAVITATION	8	-	-	8	-	-	8	1	7	8	6	2	3	6	3.5	3.6	3	1	5	2	1	4	3	
UPPER LOBE DISEASE WITHOUT CAVITATION	3	2	-	1	-	3	-	1	2	1	1	-	1	1	0.7	3.2	-	-	1	1	-	1	2	
BILATERAL DISEASE WITH MIDDLE LOWER (OR BOTH) CAVITATION	8	-	-	8	-	-	8	1	7	8	8	4	3	3	4.1	4.2	-	1	2	2	-	1	7	1 Supplementary to Pneumothorax
UNILATERAL WITH UPPER AND MIDDLE OR LOWER LOBE CAVITATION	7	-	1	6	-	1	7	1	6	4	3	3	1	2	1.4	3.0	1	-	2	3	-	2	5	2 Cases Supplementary to Pneumothorax
MIDDLE OR LOWER LOBE CAVITATION UNCOMPLICATED	6	-	1	5	-	-	5	3	3	5	2	3	3	4	4.8	3.5	-	4	4	1	2	2	2	3 Cases Supplementary to Pneumothorax.
TOTAL	54	2	4	48	20	4	40	15	39	49	40	18	15	23	3.7	3.6	11	7	19	10	4	15	36	6 Cases Supplementary to Pneumothorax.

to thoracoplasty without definite improvement were classified as failures.

Analyzed according to the location and extent of the disease, the results are somewhat more illuminating. In unilateral upper-lobe cavitation, largely of the fibrocavernous type, ten cases, or 27.7 per cent, showed improvement. In bilateral upper-lobe cavitation the surprising figure of eight, or 61.6 per cent, showed improvement, a result which applies to the operated side only, where the operation was chosen for comparatively recent disease. In upper-lobe disease without cavitation four cases, or 66.7 per cent, were improved. In bilateral disease with middle, lower (or both) cavitation one case, or 11.1 per cent, was improved. In unilateral disease with upper-lobe cavitation plus middle- or lower-lobe cavitation three cases, or 30 per cent, were improved. In uncomplicated middle- or lower-lobe cavitation seven cases, or 77.7 per cent, were improved.

Of nine cases where the operation was performed as an adjunct to an unsatisfactory pneumothorax, improvement was noted in six, or 66.7 per cent. The relaxation of the diaphragm in cases with pneumothorax was of the greatest benefit where basal adhesions existed.

Our cases have shown uniformly poor results in dense fibrocavernous disease above the mid-portion of the lung. We believe that such cases, where feasible, should have other types of surgery without waiting for the doubtful beneficial effects following phrenic neurectomy. Such delay occasionally proves disastrous because of a spread of disease in the contralateral lung. Although four of the fourteen operations done for apical cavitation showed improvement, on only two of these cases was the size of the cavity affected. The remaining two were classified as improved because of retrogression of exudative disease about the cavities.

There is an old aphorism in surgery which states that the whole aim of operative procedure may be summed up as "the obliteration of dead space." Specifically in pulmonary tuberculosis the necessity for obliteration of dead space arises from the presence of cavitation, bacillary sputum, advancing disease, and recurrent hemoptyses. In the treatment of such conditions, as in all fields of medicine, no set of indications can be laid down which will apply to every individual case. Not infrequently the anatomical extent and location of the disease must be disregarded because of the patient's general condition and economic or mental status. Again, procedures of second choice must be occasionally undertaken because of the patient's refusal to submit to radical surgical procedures.

Paralysis of the diaphragm is accepted as an effective method of treatment in: (1) cavitation existing in the lower lobe and about the hilum, and occasionally in recent thin-wall cavitation involving the upper-lobe; (2) control of recent disease around the hilum and at the base.

As a supplementary procedure phrenic neurectomy is of material aid: (1) to a partial but unsuccessful pneumothorax; (2) to a reëxpanding pneumothorax.

As a procedure of second choice phrenic neurectomy is useful in: (1) recurrent hemoptysis where pneumothorax is unsuccessful; (2) the control of symptoms in severe phthisis.

The usual sequence of events in the operative treatment of pulmonary tuberculosis is pneumothorax, phrenic neurectomy, and finally thoracoplasty, if the two previous interventions are unsuccessful. There is a large group of cases in which phrenic neurectomy should be used in preference to either of the above procedures. We further believe that those cases with fibrocavernous apical disease should have immediate thoracoplasty if the operation is to be considered ultimately feasible.

The probable trend of the pulmonary disease following phrenic neurectomy can be predicted within three to six months after operation. If, after such an interval of diaphragmatic paralysis, the disease has shown no tendency toward retrogression, these patients should be considered for further surgical treatment. A delay longer than six months is not justifiable because of the danger of "cross-fire infection." In any event, the favorable results of phrenic neurectomy analyzed six months after operation cannot be ascribed to the intervention of the operation alone.

SUMMARY

Eighty-three cases of phrenic neurectomy are reviewed from the clinical and roentgenological standpoint separately.

Thirty-three cases, or 39.8 per cent, of the entire group showed improvement following operation. In only two of the eighty-three cases was there any disagreement between the status of the patient as estimated clinically and roentgenologically. From these cases we conclude:

(1) The trend of disease may be determined within six months, and usually within three months following operation.

(2) Disease below the mid-portion of the lung is more amenable to treatment by phrenic neurectomy than disease elsewhere.

(3) Phrenic neurectomy is not indicated in fibrocavernous disease involving the upper third of the lung.

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THE HEALTH FORUM*

BY HENRY D. CHADWICK, M.D.,† AND HERBERT L. LOMBARD, M.D.†

WHIPPLE, in his "State Sanitation" published in 1917, said, "The Massachusetts State Board of Health has ever maintained a dignified and conservative attitude toward its publications, never having indulged in the use of cartoons, stories, or bright and catchy phrases, such as are found in many health bulletins; it has not 'written down' to what may be called the popular level, but has endeavored to instruct the physicians, believing that it was their province, in turn, to instruct the families to whom they minister, while it was for newspaper and magazine writers to present the facts of science in a form suitable for their readers. This has given to the publications of the Board a high scientific standing, which is better recognized in Europe, perhaps, than in this country."

Since that time, health departments, in general, have felt the need of going directly to the people with many problems, and the Massachusetts Legislature of 1929 amended the statutory duties of the State Department of Public Health to include dissemination of such information as it considers proper for diffusion among the people.

The Health Forum, started in 1930 as one other method for the dissemination of public health knowledge, was begun primarily as a radio project at WEEI. After it was found that the newspapers would carry the questions and answers, it was adapted to both media of publicity. At the present time, it is printed in seventy newspapers.

A newspaper column, called the "Ways to Health," was started by the Department on February 24, 1919, and was published regularly until February 3, 1920. This column was limited to seven newspapers, and aroused much unfavorable feeling among physicians in the State. A successful and somewhat similar type of project regarding care of children, carried on by the Westchester County Children's Association, New York, was the incentive for the reëstablishment of this form of publicity.

In the first year, 266 questions were received by the Health Forum; in the following year, 230; in the third year, 250; and in the year ending July 1, 1934, 617. The probable explanation for the great increase during the past year is the addition of the *Boston Globe* to the list of newspapers receiving the Forum, and a five minute Question Box on WBZ.

At the close of the first year, a review of the questions asked showed that the public was more interested in matters pertaining to disease than to public health. A large number of questions were of too personal a nature to be answered either through the newspaper or the radio, and personal letters were requested. The Department repeatedly attempted to curb such types of questions by reiterating that they could not be answered. As this did not suffice, the policy of the Department was changed.

Beginning in July, 1931, a foreword on some subject was prepared and the number of questions printed was decreased. This practice has continued to the present time. The Department also prepared questions on public health which were answered in place of many of the questions sent in.

In the four years of its existence, the Health Forum has received 1363 questions from the public. Diagnosis was requested by 253 individuals. Requests for the Department to outline treatment for a given disease was the substance of 361 letters. The Department was requested to furnish the name of a physician by 89 individuals and to outline a diet for a given disease by 114. Of the total 1363 questions, 817 or 60 per cent were outside the scope of the work of this Department.

From an educational standpoint, it is interesting to note which method of publicity stimulated the question. Our figures indicate 31

TABLE I

TYPE OF ANSWER GIVEN TO HEALTH FORUM QUESTIONS

August 1, 1930 - July 31, 1934

Personal letter	439
Newspaper	47
Radio	135
Letter and newspaper	12
Letter and radio	370
Newspaper and radio	197
Letter, newspaper, and radio	151
Unanswered as no address was given	12
Total	1363

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TABLE II

TYPE OF INFORMATION SOUGHT

	Health Forum 1930-1934	Ways to Health 1919	Health Forum Forewords 1931-1934	Literature Requests 1933-1934	Mass. Med. Society Broadcasts 1931-1934
Accidents	1	2	3	0	4
Allergy	28	6	4	2	1
Anemia	14	2	0	1	1
Arthritis	131	6	5	223	2
Cancer	25	1	5	125	6
Cardiovascular renal disease	67	15	5	115	14
Communicable disease	0	1	3	3	2
Croup	0	2	0	0	0
Diabetes	20	1	5	28	2
Digestive diseases	99	20	4	47	5
Diphtheria	0	2	1	1	1
Endocrines	12	4	4	2	2
Erysipelas	1	0	1	0	0
Eye and ear diseases	21	14	1	2	5
Female genitals, diseases of	25	0	0	0	0
Genito-urinary diseases	20	2	0	0	0
Gonorrhea and syphilis	11	0	0	7	0
Hemorrhagic diseases	0	0	1	0	1
Hemorrhoids	9	2	1	5	1
Leprosy	0	0	0	1	0
Measles	0	1	3	3	2
Meningitis	0	0	2	0	1
Nervous and mental diseases	56	11	2	1	7
Nose, throat, and mouth diseases	67	10	6	14	1
Nutritional diseases	0	1	2	0	0
Osteomyelitis, acute	0	0	1	0	0
Poliomyelitis, anterior	0	0	3	0	3
Rabies	0	1	3	2	1
Respiratory diseases, acute	10	12	7	8	5
Rheumatic fever	1	0	1	0	1
Scarlet fever	1	1	0	1	0
Skin, diseases of	146	37	4	8	0
Smallpox and vaccination	0	0	3	1	0
Trench fever	1	0	0	0	0
Tuberculosis	26	8	6	9	5
Typhoid fever	0	0	1	0	0
Varicose veins and phlebitis	16	2	0	1	0
Whooping cough	0	1	1	2	1
All other diseases	45	38	0	63	0
Total diseases	853	203	88	675	74
Symptoms given, asked diagnosis or treatment	253	99	0	0	0
Asked for doctor, no disease mentioned	25	7	0	0	0
Questions on normal diet and foods	73	51	12	283	6
Questions on drugs, cosmetics, and methods of therapy	43	21	0	1	4
Questions on public health, personal hygiene, and periodic health examination	60	89	52	379	41
Questions on body weight	34	22	0	0	2
Pregnancy	6	2	0	0	2
Headaches	0	0	1	0	1
Fatigue	0	0	2	0	2
Carbon monoxide gas	0	0	1	0	0
Hospitals	0	0	1	0	1
Quack doctors	0	0	2	0	3
Other questions	16	6	0	0	0
Total	510	297	71	663	62
Grand total	1363	500	159	1338	136

per cent radio, 22 per cent newspaper, and 47 per cent unknown. The unknown figure is so large that the information we have is not of great value. From such material as is available, considering that the unknown may have been reached by either newspaper or radio or possibly by both, it is felt that the radio and newspaper are probably of about equal weight. This, however, is by no means certain.

The average person asked 1.28 questions. Table I shows the method by which the questions were answered. As questions were answered by personal letter, by radio, or by the newspaper, or frequently by more than one of these media, the total number of answers given is much greater than the number of questions, and is 2232. Personal letters were sent to 972 individuals; the newspaper published 407 questions and answers; and the radio broadcast 853.

Wherever possible, questions have been answered by members of the Department, but about one-third of them (448) have been answered by specialists in various fields of medicine from whom the Department requested a reply.

Table II shows the type of question asked in the Health Forum, the Ways to Health, the subjects of the Health Forum forewords, the subjects of literature requests, and the subjects of the Massachusetts Medical Society broadcasts. Although the latter broadcast is entirely separate from Health Forum activities, it is another way to instruct the public on medical matters, and there is a probability that some at least of the Health Forum questions were prompted by these talks.

In the May, 1934, issue of *Hygeia* appeared a list, in numerical order, of the twenty-five questions which were asked most frequently. A comparison of the questions received by the magazine with those received by the Department is shown in Table III.

Health Forum questions and requests for literature came from nearly half of the towns and cities in the State. The largest number came from Boston, Worcester, Springfield, Somerville, Lynn, Cambridge, and Brookline respectively. Sixty Health Forum questions originated outside of Massachusetts, but in New England; five in the United States, but outside of New England; and one came from outside of the United States. While questions came from widely separated geographical locations, the greater bulk of them were from eastern Massachusetts.

TABLE III

COMPARISON BETWEEN HYGEIA AND HEALTH FORUM SUBJECTS

	Hygeia Order	Health Forum Order
Books and pamphlets	1	1
Diet and foods	2	5
Hair and scalp	3	39
Arthritis	4	6
"Beauty" questions	5	31
Sex	6	47
Drugs	7	20
Allergy	8	13
Physical therapy	9	44
Diseases peculiar to women	10	16
Constipation	11	31
Eyes and vision	12	26
Choosing a doctor	13	7
Diseases of heart and blood vessels	14	8
Mouth hygiene	15	11
Cancer	16	16
Ears and hearing	17	51
Infant and maternal hygiene	18	28
Tuberculosis	19	15
Cod liver oil preparations	20	0
Nose and sinuses	21	9
Diabetes	22	22
Thyroid gland and metabolism	23	31
Obesity and reducing	24	9
Acne and pimples	25	24

The Department has decided to change its policy again in regard to the Health Forum as it has been found impossible to limit questions by the public to impersonal health matters. It was decided that, beginning October 1, no questions would be answered, and only discussions on timely topics would be used. In order to continue this as a Forum, the public are invited to send in topics for discussion, and as many as seem practical will be used.

CANCER OF THE ESOPHAGUS

BY FREDERICK L. HOFFMAN, LL.D.*

IN a small treatise on Essential Facts About Cancer—A Handbook for the Medical Profession, issued by the American Society for the Control of Cancer in 1924, occurs the following extraordinary statement with reference to cancer of the esophagus; "This is a squamous and metastasizing carcinoma. It is rare and possibly related to chronic irritation. There are an equal number of cases among males and females" (p. 49).

As a matter of fact cancer of the esophagus is not rare and the mortality among males is decidedly larger than among females. The actual facts of the past and present situation are briefly reviewed for the present purpose. In the table following I give the deaths and death

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rates per 100,000 for cancer of the esophagus in the United States Registration Area, 1915-1932, showing that at the present time the mortality exceeds two thousand deaths per annum, while the prevailing death rate is 1.7 per 100,000, compared or contrasted with a rate of 1.0 in 1915. How far this increase is actual or due to better diagnosis can not be determined, but a mortality of two thousand deaths a year certainly does not justify the statement that cancer of the esophagus is of rare occurrence.

CANCER OF THE ESOPHAGUS,
U. S. REG. AREA, 1915-1932

RATE PER 100,000

	Deaths	Rate		Deaths	Rate
1915	707	1.0	1924	1,527	1.5
1916	728	1.0	1925	1,659	1.6
1917	751	1.0	1926	1,766	1.7
1918	753	0.9	1927	1,756	1.6
1919	903	1.1	1928	1,850	1.6
1920	1,103	1.3	1929	1,786	1.6
1921	1,264	1.4	1930	1,893	1.6
1922	1,342	1.4	1931	2,036	1.7
1923	1,445	1.5	1932	2,058	1.7

Stout, in a comparatively recent treatise on Human Cancer, points out that,

> "The esophagus is one of the important sites for the appearance of fatal cancer and its malignant tumors also occupy a position of considerable prominence among those seen at a general hospital. At the Presbyterian Hospital, New York, there were 51 esophageal cancers recognized among the 1862 cancers occurring in a ten-year period, or 2.75 per cent of the total number and 7 per cent of the cancers of the alimentary tract. As a cause of death among cancers it is somewhat more important, since it is practically never cured and, because its hopelessness is well known, relatively fewer cases come into a general hospital than is the case with cancers for which something radical may be attempted."

I also quote from an article on Carcinoma of the Oesophagus by Dr. H. S. Souttar, contributed to a small treatise issued under the auspices of The Fellowship of Medicine, London, 1925, to the effect that,

> "The importance of carcinoma of the oesophagus may be estimated from the fact that in the Report of the Registrar-General it is stated that in the decade 1911-1920 the number of deaths from this condition in England and Wales was 15,909, forming just 4 per cent of the total deaths from cancer. Among males the figures are even more striking, for here the number is 12,059, or 7 per cent of the male cancer deaths. These figures are in themselves sufficient to show that the condition is of real importance, whilst the misery which it entails and the difficulty of its relief, present to the surgeon a problem as serious as any in the whole subject of cancer."

Souttar also draws attention to the fact that "Cancer of the oesophagus is far more prevalent in men than in women, the ratio in a wide range of statistics varying between 3 to 1 and 4 to 1."

I regret that I have no statistics for this country according to sex, since the official tabulations are for both sexes combined, but I give below a table for England and Wales, clearly illustrating the sex factor. The much larger mortality of cancer of the esophagus among men than among women is a flat contradiction of the statement made at the outset.

CANCER OF THE ESOPHAGUS,
ENGLAND AND WALES,
1922-32

RATE PER 100,000

	Total		Males		Females	
	Deaths	Rate	Deaths	Rate	Deaths	Rate
1922	1,934	5.06	1,475	8.09	459	2.30
1923	1,981	5.15	1,492	8.13	489	2.43
1924	2,082	5.37	1,563	8.42	519	2.56
1925	2,186	5.62	1,669	8.97	517	2.54
1926	2,145	5.49	1,624	8.68	521	2.55
1927	2,076	5.28	1,542	8.20	534	2.60
1928	2,244	5.68	1,670	8.84	574	2.79
1929	2,210	5.58	1,642	8.65	568	2.75
1930	2,260	5.68	1,669	8.75	591	2.85
1931	2,364	5.91	1,742	9.09	622	2.99

It is shown by the foregoing table that the number of deaths from cancer of the esophagus in 1931 in England and Wales was 2,364 for both sexes combined, or respectively 1,742 for males and 622 for females, or a ratio of about 3 to 1. The rates per 100,000 of population were 9.09 for males and 2.99 for females. The combined rate in 1931 was 5.91 against a rate of 1.7 for this country. Cancer of the esophagus, therefore, is far more common in England and Wales than in this country, but the reason for this is entirely unknown at the present time.

I have corresponding information for Scotland, showing a rate of 4.86 per 100,000 in 1932 for both sexes combined or 6.48 for males and 3.40 for females. The combined rate for Scotland increased from 3.36 per 100,000 in 1921 to 4.86 in 1932.

For the Irish Free State the rate for males in 1932 was 5.15 per 100,000 against a rate of 2.26 for females, while the combined rate was 3.73. The combined rate in 1924 was 2.96.

For Northern Ireland, in 1932, the death rate for cancer of the esophagus was 3.92 per 100,000 for males and 3.08 for females. For both sexes combined the rate was 3.48.

Restating the relative frequency of cancer of the esophagus for the different countries considered, the comparison shows as follows: United States Registration Area, 1932, 1.7 per 100,000 for both sexes combined; England and Wales, 1931, 5.91; Irish Free State, 1932, 3.73; Northern Ireland 1932, 3.48; Scotland, 1932, 4.86.

I am able to amplify the foregoing general data by some statistics collected in connection

with the San Francisco Cancer Survey. I give first a table showing the relative local frequency for a number of localities and sections, according to sex.

CANCER OF THE ESOPHAGUS

RATES PER 100,000

	Total	M.	F.
San Francisco, 1920-23	4.4	7.3	1.0
San Francisco, 1924-27	5.9	9.7	1.4
San Francisco, 1928-31	6.1	9.1	2.7
Oakland, Cal., 1924-28	1.9	3.2	0.5
Chicago, Ill., 1924	5.2	8.8	2.3
Chicago, Ill., 1925	4.3	6.9	1.6
Boston, Mass., 1920-24	5.0	8.2	1.9
Boston, Mass., 1925-26	5.0	8.4	1.7
Buffalo, N. Y., 1922-26	3.3	5.9	0.8
New Orleans, W., 1919-23	2.3	4.2	0.5
New Orleans, C., 1919-23	0.2	0.4	—
Virginia, White, 1926	0.3	0.5	0.1
Virginia, Col., 1926	—	—	—
East Orange, N. J., 1920-30	1.2	1.3	1.1
East Orange, N. J., 1931-33	2.8	4.0	1.7
Albany, N. Y., 1919-23	4.1	7.4	1.0
Albany, N. Y., 1924-29	3.7	7.3	0.3
Hawaii, 1924-28	2.0	2.8	0.9
Hawaii, 1928-31	1.4	2.0	0.5
Br. Columbia, 1920-24	2.0	2.9	0.8
Br. Columbia, 1925-29	2.5	3.6	1.0
Alberta, 1921-25	0.7	0.9	0.4
Saskatchewan, 1920-24	0.6	0.8	0.3
Winnipeg, 1920-24	2.4	2.9	2.0
Hot Springs, 1914-26	3.3	5.4	1.3
Hot Springs, 1927-31	—		
Madison Co., N. Y., 1919-32	1.1	0.7	1.5
Manila, P. I., 1924-28	0.3	0.3	0.3
Amsterdam, Hol., 1920-29	7.2	12.0	2.8
Portsmouth, Eng., 1919-24	5.3	9.0	1.5
Montreal, Can., 1909-25	1.2	2.1	0.4

This table reveals a wide range of differences in the local rates of frequency, or for both sexes combined, from a maximum of 7.2 per 100,000 for Amsterdam, Holland, to a minimum of no deaths for Virginia colored, 1926, and Hot Springs, 1927-31. For this remarkable difference no explanation can be given at the present time.

The average age at death in 1,887 deaths from cancer of the esophagus was 62.4 years for both sexes combined, or respectively 62.4 years for males and 62.5 years for females.

The average known duration of the disease, based on 939 deaths, was 11.1 months for both sexes combined, or 10.4 months for males and 14.6 months for females.

While cancer of the esophagus is far from rare, sarcoma of the esophagus is exceedingly so. The only definite data on the subject with which I am familiar, are the returns for England and Wales issued by the Registrar-General. For the year 1931, of the total number of deaths from cancer of the esophagus among males, 1565 were carcinomas, 3 were sarcomas and 174 were not specified. For females the corresponding figures were 545 carcinomas, 1 sarcoma and 76 not specified, a total of 622.

The race factor in cancer of the esophagus is of some interest. In 1930, according to the Census Office report, deaths from cancer of the esophagus among Negroes numbered 48 males and 16 females, among Indians, 1 female; among Chinese, 2 males; among Japanese, 3 males, and among other races, 2 males. Since the Negro population of the country is about 11.3 per cent of the total, or not quite 12,000,000, the rate of frequency among Negroes is less than among the white population.

As regards the age factor, it is of interest to know that in 1931 there was one death from cancer of the esophagus as early as age three, and in 1932, one death as early as age one. According to my San Francisco cancer investigation, deaths from cancer of the esophagus in San Francisco, 1924-27, numbered 117 males at an age range of 32 to 87, while among females there were 15 deaths with an age range of 43 to 82. During the next four years, 1928-31, there were 123 deaths from cancer of the esophagus among males with an age range of 34 to 89, while among females there were 32 deaths with an age range of 32 to 78.

I omit an extended discussion of the causative factors since there is nothing particularly new that requires to be emphasized. Reference, however, may be made to an extended discussion of etiology by Dr. Lloyd F. Craver in *The American Journal of Cancer*, January, 1932, which unfortunately is based on only 18 cases. However, I quote Dr. Craver's conclusion that "For cancer of the esophagus the following factors attained the higher scores: tobacco, alcohol, lack of water, poor teeth, lack of teeth, and drugs (cathartics)." He observes that "From the present study one can assert that by means of grading the various factors that were investigated a definite discrepancy appears between the factors receiving the higher scores in cases of carcinoma of the stomach and those receiving the higher scores in cases of carcinoma of the esophagus. . . . This very discrepancy might be used to meet a criticism of lack of control cases, for, if one expected to find that any group of individuals of similar ages and social status would have the same factors of bad teeth, eating habits, use of tobacco and alcohol, etc., no such definite discrepancy should appear between these two groups." And that,

> "While one would perhaps not be justified in drawing conclusions with any degree of finality from this small series of patients, the amount of information that did appear confirms the writer in his belief that clinical research of this type is the primary approach to a discovery of the etiology of many of the forms of human cancer. Close analysis of all the conceivably pertinent influences to which an individual has been subjected is likely, in the long run, to be the method most productive of information that can be applied towards prevention of cancer. It was primarily this sort of investigation that indicated the causes of industrial cancers of skin

and bladder, and afforded clues upon which experimental studies could be based. An investigation of this type should be applied to a large series of patients with gastric and esophageal cancer, and to an equal number of patients not suffering from cancer, so that, by force of numbers, the arbitrary grading of factors may assume more nearly the true significance of averages. If this is done, data of pronounced value with respect to the etiology of these diseases will undoubtedly be obtained."

On the subject of prognosis the outlook for successful treatment remains a dismal one. While some permanent cures have been reported, they are so extremely rare as to justify the statement that failures in treatment are approximately 100 per cent. Palliative results are secured to an increasing extent and the condition of the patient is relieved much more now than formerly. I quote in this connection some remarks by Sir Holburt J. Waring, in his treatise on The Surgical Treatment of Malignant Disease, London, 1928, to the effect that, "The prognosis in all cases of carcinoma of the esophagus is extremely unsatisfactory. The best the surgeon can hope for is by performance of an early gastrostomy to prolong considerably the patient's life, to ameliorate his condition, and to prevent death from starvation. Some patients upon whom I have performed gastrostomy have lived in comparative comfort for 9 to 15 months, but usually death has occurred 3 to 6 months afterwards. The certain degree of success which has followed the use of radium, though small up to the present, may perhaps give hope of better results in the future."

I also quote some pertinent remarks on treatment by radium, which are of exceptional interest.

"Recently, some measure of success has been obtained in the treatment of carcinoma of the oesophagus by the introduction into the region of the disease of a tube containing radium. In the application of radium in cases of this kind, the position and extent of the carcinoma should be first ascertained by X-ray investigation, and when the tube containing radium is applied, the position should be exactly determined by X-ray control.

"The treatment of carcinoma of the oesophagus by radium is yet in the experimental stage. When applying radium, the radium-containing tube is passed down to the region of the stricture or into the stricture if possible, the exact position of the growth having been previously ascertained by X-ray examination. Some cases have been improved after this form of treatment, but as yet results are not sufficient to be able to state the value of this method of treatment."

Finally, with reference to x-ray, it is said,

"More recently, attempts have been made to treat the disease by deep X-ray therapy. Personally, I have not seen any satisfactory results from this method. In one case which came under my observation, after the application of the deep X-ray therapy perforation took place, the patient died within a week from septic conditions. In this case, however, the perforation may have been quite independent of the application of X-ray, as the disease was very considerably advanced.

With further reference to treatment of cancer of the esophagus by radium, I cannot omit to quote from the report of the Cancer Control Organization for Edinburgh and South-East Scotland, 1934, under the direction of Dr. J. J. M. Shaw. He describes the process of radiation as follows:

"Radiation may consist of radon implants, of bougies carrying three or four tubes of 6.25 mgm. of radium put in each day for several hours until a suitable dose has been obtained, or of X-radiation. It will be noticed that one patient treated in 1931 is still alive. This man was treated with radium bougies just over two years ago, one year later he was examined and a biopsy was taken for the second time. The first histological report gave squamous epithelioma, the second stated that no sign of malignancy could be detected in the specimen submitted. For some time after this examination the patient disappeared, but he has now been admitted to a municipal hospital, where he is said to be very ill. The case has been quoted at length because it is the only one in our series which has survived for more than one year."

SUMMARY

1. It is shown that cancer of the esophagus is far from being a rare disease, causing over two thousand deaths per annum at the present time.

2. The death rate from cancer of the esophagus has increased from 1.0 per 100,000 in 1915 to 1.7 in 1932 in the United States Registration Area.

3. Compared with certain other countries, cancer of the esophagus in this country is much less common than in others. The rate for England and Wales in 1931 was 5.91 per 100,000 for both sexes combined, while that of Scotland was 4.86 in 1932, Irish Free State, 5.15, Northern Ireland, 3.48.

4. The rate for males is much higher than that for females, especially in England and Wales where in 1931 it was 9.09 per 100,000 for men and 2.99 for women.

5. The prognosis is still very dismal and few cases are cured. Radium and x-ray seem to offer the only chance for successful palliative treatment and relief at the present time.

THE SPINAL FLUID DYNAMICS DURING ENCEPHALOGRAPHY*

BY T. J. C. VON STORCH, M.D.†

AN investigation of the changes in pressure of the cerebrospinal fluid occurring during encephalography was begun in this clinic in 1932. It was observed that in the sitting position, the serial replacement of cerebrospinal fluid by equal volumes of air (at atmospheric pressure) resulted in a progressive fall of the lumbar spinal fluid pressure, in the majority of cases. This was also true within certain limits when the volume of air injected was appreciably greater than the volume of fluid removed. In order to maintain a lumbar spinal fluid pressure greater than atmospheric, in the majority of cases a volume of air considerably larger (20 to 30 cc. greater) than that of the removed fluid had to be introduced (sometimes as much as 100 cc. of air replacing 70 cc. of spinal fluid, or 180 cc. of air replacing 150 cc. of spinal fluid). There is considerable individual variation in the relative volumes necessary to maintain a pressure above atmospheric. At the end of such air injections when the spinal fluid had been almost completely replaced by air, the final sitting lumbar pressure was about equal to the recumbent lumbar spinal fluid pressure for that patient. Usually it was necessary to inject a volume of air larger than that of fluid removed in order to maintain such a final sitting pressure. Under these conditions, there was no increase in lumbar pressure when the patient resumed the recumbent position. Furthermore, lumbar punctures performed four, six, twelve and twenty-four hours after the encephalography revealed that the lumbar spinal fluid pressure had become even less than at the end of the air injection.

An explanation of the observations is offered as follows: When the ventriculo-subarachnoid spaces are filled with cerebrospinal fluid the pressure at any point in the system is significantly influenced by the height of the column of cerebrospinal fluid above the point at which the pressure is measured. Thus a normal lumbar pressure of 130 mm. of cerebrospinal fluid in the recumbent position is increased to about 390 mm. on assuming the sitting position, because of the increased height of the column of fluid above the needle. The relative influence upon the cerebrospinal fluid pressure of the cerebrospinal and venous hydrostatic columns above the point of measurement of pressure is as yet an unsettled point. The semi-rigid nature of the cranio-vertebral cavity diminishes the full effect of the column of spinal fluid upon the pressure. Certainly the reflection of the venous pressure on the spinal fluid is an important part of the normal sitting spinal fluid pressure. However, in the replacement of spinal fluid it is certain that the effect of the superimposed spinal fluid column is primarily effective. These factors will be considered in detail in a future report. If now the cerebrospinal fluid be replaced by a gas (air) the influence of position upon the pressure within the subarachnoid becomes negligible because a column of air the height of the cranio-vertebral cavity exerts a minute pressure wholly outside the limits of clinical measurement.

Therefore, when the ventriculo-subarachnoid spaces are filled with air the pressure in all parts of this system is equal. A change from the recumbent to sitting position or vice versa causes no appreciable change in pressure either in the lumbar or ventricular regions.

If during the replacement of spinal fluid by air the sitting lumbar pressure be maintained at or about the recumbent lumbar pressure, i.e., 150 mm. of spinal fluid (by the introduction of appropriate volumes of air) the pressure throughout the system will be 150 mm. This means that in the sitting position the lumbar pressure has been diminished by about 250 mm. of spinal fluid, the cisternal pressure increased from zero by about 150 mm. and the ventricular pressure increased from minus 100 by about 250 mm. of spinal fluid. These pressures do not represent dangerous increases in intracranial pressure, particularly in that they need not be maintained for long. Upon the resumption of recumbency the lumbar, cisternal and ventricular pressures are maintained at or about 150 mm. of spinal fluid which is the normal recumbent pressure for all three.

A series of observations have confirmed this explanation and have conclusively shown that the "safety-factor" concept of encephalography is erroneous. This conception (based on an application of the gas laws of Boyle and Charles to a rigid container) postulates that unless less air be introduced than fluid removed, the expansion of the air changing from room to body temperature would cause an increased intracranial pressure with consequent danger to the patient. Actually this expansion of air exerts only a negligible effect upon the pressure because of the semielastic nature of the craniovertebral cavity.

These findings have a practical as well as the-

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oretical interest because they demonstrate that it is possible to introduce considerably more air than fluid removed without increasing the spinal fluid pressure above normal. The introduction of relatively larger volumes of air results (by expulsion of intracranial venous blood) in more finely defined and better "filled" encephalograms. Measurements of the spinal fluid pressures after encephalography have shown that the reaction of the patient to the procedure is not due to increased intracranial pressure, but is due to shock and to the aseptic meningeal reaction to the presence of air. The reaction is accompanied by a low spinal fluid pressure in most cases. In addition, it was demonstrated that the reduction of intracranial pressure by removal of spinal fluid in the sitting position does not cause the headache of encephalography. That this type headache is due primarily to the presence of air in the ventriculo-subarachnoid spaces is demonstrated by the fact that the introduction of minute quantities (0.5-1.0 cc.) of air produces a localized headache. Further studies on the cause of the headache, the influence of air injection on the cytology and chemistry of the spinal fluid, the relation of symptomatology to encephalography and the relative value of the cerebrospinal fluid and venous hydrostatic columns to the cerebrospinal fluid pressure are in progress.

NEW ENGLAND SURGICAL SOCIETY

THE Seventeenth Annual Meeting of the New England Surgical Society was held at Burlington, Vermont on September 28 and 29, 1934.

Friday morning was devoted to a Scientific Session held at the Fleming Museum of the University of Vermont, at which the following papers were presented:

1. The Value of Prolonged Preoperative Drainage in Prostatectomy, by Dr. J. Dellinger Barney.
2. Tidal Drainage in the Treatment of the Atonic Urinary Bladder with Transverse Myelitis, by Dr. Donald Munro.
3. Indication for and Results of Total Cystectomy for Cancer of the Bladder, by Dr. William C. Quinby.
4. Ureterorectal Anastomosis, by Dr. Thomas N. Hepburn.
5. The Association of Pylephlebitis and Appendicitis, by Dr. Arthur W. Allen. Dr. W. H. Snyder, Jr., Dr. M. G. Hall, by invitation.
6. Recurrent Peripheral Thrombophlebitis Causing Pulmonary Embolism, by Dr. John Homans.
7. Acute Hematogenous Osteomyelitis, by Dr. Richard H. Miller.

At one-thirty luncheon was served at the beautiful grounds of the Burlington Country Club where some of the members availed themselves of the privileges of the Golf Course. The majority of the members and a goodly number of wives, spent the afternoon on Lake Champlain. A comfortable steamer was provided and a delightful clear afternoon made the excursion a perfect success. It was all the more delightful and instructive because Dr. Lyman Allen expounded the history of the Lake and its epoch-making events, as we sailed behind Valcoeur Island where Arnold outwitted the British Fleet.

In the evening the annual dinner was held at the Hotel Vermont. Ninety-three members were present. The President, Dr. Frederick B. Sweet of Springfield, Massachusetts presided and delivered the presidential address*.

Dr. Daniel C. Patterson of Bridgeport, Connecticut delivered an address on Dr. Thomas*.

Dr. Lincoln Davis of Boston, President of the Boston Medical Library, spoke briefly of the needs of the Library.

On Saturday morning the Annual Business Meeting was held at which the following officers were elected:

President: Peer P. Johnson, M.D., Beverly, Mass.

Vice-President: William G. Townsend, M.D., Burlington, Vt.

Secretary: John M. Birnie, M.D., Springfield, Mass.

Treasurer: James R. Miller, M.D., Hartford, Conn.

Recorder: Walter G. Phippen, M.D., Salem, Mass.

It was announced that the next meeting would be held at Manchester, New Hampshire in September, 1935. At the Scientific Session immediately thereafter, the following papers were read:

1. The Limitations of Enterostomy and Undesirable Effects Incident to Its Use, by Dr. Isaac M. Webber.
2. Slipping Epiphysis of the Head of the Femur, by Dr. James W. Sever.
3. Fractures of the Femoral Neck Treated by Blind Nailing, by Dr. Ernest C. Hunt. Dr. John W. O'Meara, by invitation.
4. Traumatic Rupture of the Diaphragm Resulting from a Shell Fragment, by Dr. Walter G. Phippen, Dr. Philemon E. Truesdale.
5. Technique of the Resection of the Cecum by a One-Stage Procedure, by Dr. Samuel C. Harvey.

*To be published later.

6. Vaginal Hysterectomy, by Dr. Oliver N. Eastman.

7. Gynecologic Problems of Interest to the Surgeon in General Practice, by Dr. Arthur H. Morse.

8. Bleeding Gastric Ulcer, by Dr. George A. Moore.

Approximately one hundred members registered and all were unanimous in thanking the Burlington members for a very enjoyable as well as instructive meeting.

VERMONT STATE MEDICAL SOCIETY

HOUSE OF DELEGATES

THE fixed session of the House of Delegates was called to order by the President, C. G. Abell, M.D., at one o'clock, Thursday afternoon, October 4, 1934, at the Fleming Museum, University of Vermont, Burlington.

The Secretary, E. J. Quinn, called the roll, which was as follows:

Addison County Medical Society:
Dr. R. S. O'Connell, Middlebury.

Bennington County Medical Society:
Dr. John Trotter, Bennington.

Chittenden County Medical Society:
Dr. S. A. Wilson, Burlington.
Dr. P. E. Lawlor, Burlington.
Dr. P. K. French, Burlington.
Dr. B. D. Adams, Burlington.
Dr. C. H. Beecher, Burlington.

Franklin County Medical Society:
Dr. C. G. Abell, Enosburg Falls.
Dr. E. A. Hyatt, St. Albans.
Dr. F. J. Lawliss, Richford

Lamoille County Medical Society:
Dr. Seth Martin, Johnson.

Northeastern County Medical Society:
Dr. R. H. Burke, St. Johnsbury.
Dr. C. D. Rublee, Newport.

Rutland County Medical Society:
Dr. R. H. Seeley, Rutland.
Dr. B. F. Cook, Rutland.
Dr. W. C. Hammond, Rutland.
Dr. A. H. Bellerose, Rutland.
Dr. E. J. Quinn, Castleton.
Dr. H. S. Martyn, Cuttingsville.

Washington County Medical Society:
Dr. W. W. Angell, Randolph.
Dr. L. W. Burbank, Cabot.
Dr. C. H. Goyette, Barre.
Dr. J. A. Wark, Barre.
Dr. W. M. McFarland, Barre.

Windham County Medical Society:
Dr. J. A. Stevenson, Chester.
Dr. P. H. Wheeler, Brattleboro.

Windsor County Medical Society:
Dr. A. M. Cram, Bridgewater.
Dr. A. L. Patch, Windsor.

The report of the secretary of the House of Delegates being called for, Dr. Beecher moved that this report be accepted as printed. Motion seconded, and so voted.

No unfinished business was presented.

Dr. William G. Ricker, Secretary of the Vermont State Medical Society, stated that he was not a member of the House of Delegates, and asked for the privilege of the floor. No objection being offered, the President granted this privilege.

Dr. Ricker stated that the suggestion contained in his report as Secretary, that the Clinical meeting (held in May of this year in Burlington) be held annually under the joint auspices of the Medical Department of the University of Vermont and the Vermont State Medical Society until such action is repealed, was not intended to deprive other sections of the state from having such meetings, and that this matter rested with the House of Delegates.

He also called attention to that portion of his report which states that "The Windham County Society wishes to obtain aid from the Harkness Fund and also protests some features of the Income Tax Law". He also quoted the following from the report of the Windham County Medical Society:

> "By vote of the Society at the last regular meeting an attempt will be made to interest the Vermont State Medical Society in obtaining aid from the Harkness Fund to enable its members to have postgraduate work in general medicine and the specialties.
>
> "The Society also went on record as protesting the fact that under the present income tax law, physicians are not allowed exemptions for medical journals and office periodicals, which we feel are as necessary to the conduct of our practices as other types of equipment."

Dr. Ricker said a special committee could be appointed, but expressed the belief that these matters could be handled by existing committees.

Dr. Ricker also quoted from the report of the Washington County Medical Society, the following:

> "Dr. Wark brought up the question of doing free work for the town poor departments. This was a timely subject and many men had something to say for or against the question, but practically all present were inclined to believe that the hospital staffs of the larger hospitals should not do this

work free but should be paid a part of the regular fee, probably one-half. The hitch in the argument came when it was brought out that if Barre, Montpelier and Randolph refused to do this work free that the Burlington hospitals, in their desire for volume, would gladly take in this work, thereby depriving the local hospitals of their just fees, because the overseers will pay a hospital bill but no medical or surgical fee. It was suggested by Dr. Allen that the State Society see what it could do in regard to passing a bill in the next legislature, compelling all town poor departments to pay at least fifty per cent of the regular surgical and medical fees on all town cases. It was also felt that the State Society, as a body, could do much to bring about coöperation of the various staffs to do away with this sort of bantering. The dues are paid to a central body to help organize and lead us in such matters but as yet we have had little assistance."

Referring again to the secretary's report Dr. Ricker quoted as follows:

"The Washington County Society has discussed very freely the matter of income from the care of indigent patients and apparently feels that public funds should reimburse the physician to a certain extent, but the competition existing between certain communities has produced a situation that is objectionable. The House of Delegates should take a definite stand in regard to this matter and each County Society should consider itself bound by the action of the House of Delegates or else voice its protest at the time of the meeting of the House of Delegates. All cards should be laid on the table. There should be no misunderstanding."

He also referred to that portion of his report in which he states:

"I have served you for a long time as Secretary and realize that the time comes sooner or later when an individual becomes stale. The election of a successor as Secretary of the State Medical Society will be agreeable to me." . . .

and added that though he had served as secretary for eighteen years, he was not resigning nor asking for office, but was putting before the House of Delegates the opportunity to elect a younger man as Secretary, but that if re-elected he would do his best.

He closed his remarks by asking for an expression from the House of Delegates as to whether the Society is satisfied with the present method of handling publications.

Under reports of committees, Dr. Beecher moved that the various reports be accepted as printed. Motion seconded and so voted.

Dr. Ricker also brought up the matter of radio programs, and quoted the price for the same over the Waterbury and Springfield (Vt.) stations.

He also suggested the possibility of legislation at the next session of the Legislature, pertaining to the licensing of naturopaths, which was discussed briefly.

In regard to the Harkness Fund Dr. Philip Wheeler, of Brattleboro, stated that he had ascertained there was no possibility of this being enlarged at the present time; that it was purely an educational fund, but if Vermont men could receive some of its benefits it would be of value.

Dr. Beecher moved that this matter be referred to the Committee on Medical Education, which motion was seconded by Dr. Quinn, and so voted.

Dr. C. H. Beecher read a communication from Mr. Francis J. Kelley (Burlington), regarding the group plan of Vermont druggists, and moved that it be referred to the Legislative Committee. Motion seconded and so voted.

Dr. Cram moved that the matter of possible legislation pertaining to the licensing of naturopaths, be referred to the Legislative Committee, which motion was seconded, and so voted.

The method of handling the indigent poor, by hospital staffs, and the fees for such work (in some instances the towns having contracts with hospitals), was discussed at length by Dr. Seth Martin, Dr. Wark, Dr. Burbank, Dr. Ricker, Dr. Beecher, Dr. W. W. Angell, Dr. Seeley and Dr. Quinn.

Dr. Beecher moved that this Society go on record as recommending to, and urging the hospitals in the state, that they, in addition to charging their regular ward rates for town cases, also do their utmost to secure for the attending staff a minimum of fifty per cent of the regular fees for attendance on those cases. Motion seconded.

Dr. Quinn suggested that the minimum fee might be better at 30 per cent, as the Rutland Hospital charged town ward cases an extra dollar per day, and with 50 per cent of regular fee the cost to towns in this locality for ward cases, would be excessive.

Dr. Wilson expressed the opinion that this was a matter that should be put before the hospitals all over the state, whereupon Dr. Beecher added to his motion, "to include not only the hospitals, but the management of the hospitals, and the attending staffs as well", which motion, as added to by Dr. Beecher, was seconded, and so voted.

Dr. Beecher moved that the next meeting of the Society be held in Rutland. Motion seconded, and so voted.

Dr. Beecher nominated for President of the Society for the ensuing year, Dr. George G. Marshall, of Rutland. This nomination being seconded by Dr. J. A. Stevenson, it was so voted.

Dr. Wm. G. Ricker was nominated to serve as secretary for the coming year, and the nomination being seconded it was so voted.

Dr. Beecher moved that the Chair appoint a nominating committee to bring in, at the five

o'clock session of the House of Delegates, nominees for the remaining offices and committees. Motion seconded, and so voted.

President Abell appointed as such committee Dr. Paul K. French of Burlington, Dr. B. F. Cook of Rutland, and Dr. John Trotter of Bennington.

It was moved, seconded, and voted that the meeting adjourn until five o'clock, same room.

FIVE O'CLOCK SESSION

The adjourned session of the House of Delegates reconvened at five o'clock, the same date and same place, with President Abell in the chair.

President Abell called for the report of the nominating committee.

Dr. French, as chairman of this committee, reported as follows:

President: George G. Marshall, Rutland.
Vice-President: F. C. Phelps, Vergennes.
Secretary: W. G. Ricker, St. Johnsbury.
Treasurer: David Marvin, Essex Junction.
Auditor: E. H. Buttles, Burlington.

Councillors:

1st District: E. A. Hyatt, St. Albans.
2nd District: C. M. Campbell, Manchester Center.
3rd District: Lyman Allen, Burlington.
4th District: Clarence Ball, Rutland.

Executive Committee:

B. F. Cook, Rutland.
W. G. Ricker, St. Johnsbury.
J. R. Woodruff, Barre.

Publication Committee:

W. G. Ricker, St. Johnsbury.
C. F. Dalton, Burlington.
L. H. Ross, Bennington.

Legislative Committee:

C. H. Beecher, Burlington.
S. W. Hammond, Rutland.
E. A. Tobin, Bennington.

Medical Education:

A. C. Black (1), Brattleboro.
S. W. Hammond (2), Rutland.
S. S. Eddy (3), Middlebury.

Necrology Committee:

B. D. Adams, Burlington.
G. G. Marshall, Rutland.
H. L. Pierce, Swanton.

Medico-Legal Committee:

J. N. Jenne (1), Burlington.
F. E. Farmer (2), St. Johnsbury.
E. A. Hyatt (3), St. Albans.

Health and Public Instruction Committee:

E. H. Buttles, Burlington.
A. B. Woodman, Springfield.
Stewart Ross, Rutland.
A. B. Soule, Burlington.
F. J. Lawliss, Richford.

Delegates:

Maine, George Anderson, Brattleboro.
New Hampshire, H. S. Goodall, Bennington.
Massachusetts, J. A. Stevenson, Chester.
Connecticut, W. W. Angell, Randolph.
Rhode Island, E. L. Amidon, Burlington.
New York, C. E. Griffin, Fair Haven.
American Medical Assoc., W. G. Ricker, St. Johnsbury.
American Medical Assoc. Alt., C. H. Beecher, Burlington.

Anniversary Chairman:

Ralph Seeley, Rutland.

Members of New England Medical Council:

J. H. Woodruff, Barre.
G. G. Marshall, Rutland.
W. G. Ricker, St. Johnsbury.
J. A. Stevenson, Chester.
E. A. Hyatt, St. Albans.

Nominees to Governor for Appointment to the Board of Medical Registration:

W. Scott Nay, Underhill.
Frank E. Farmer, St. Johnsbury.
L. W. Burbank, Cabot.
Clarence Ball, Rutland.

Officers of the House of Delegates:

President: Stanley Wilson, Burlington.
1st Vice-President: A. C. Cram, Bridgewater.
2nd Vice-President: Geo. Anderson, Brattleboro.
Secretary: E. J. Rogers, Pittsford.

Dr. Beecher moved that the report of the nominating committee be accepted as read. Motion seconded, and so voted. The President declared the various nominees elected to the respective offices and committees for which they were nominated.

Dr. Beecher stated that the President of the House of Delegates came to five of the House of Delegates members at the close of the one o'clock session, and informed them that they had been named by him to consider some of the economic phases, pertaining to the Society and its members, such committee to consist of C. H. Beecher, Chairman, Dr. Burbank, Dr. Seth Martin, Dr. Wark, Dr. Hyatt.

Dr. Beecher reported that the matters considered by this committee were as follows:

(1) Contract work.

(2) The admission to hospitals, on ward service, of patients that could pay not only the hospital charge, but the doctor as well, and who were evading the doctors' fees.

(3) In regard to the standing of the attending staffs, that such consideration had resulted as follows:

(a) The recommendation that a questionnaire should be submitted by the hospital management to patients seeking admission to hospital wards, who pay anything from a full hospital bill to nothing, and pay nothing to the doctor.

(b) The calling to life of a resolution adopted in 1908, in regard to contract practise, and the recommendation that such resolution be continued as a resolution, and the adoption of it next year as an amendment to the Constitution and By-Laws.

(c) Recommending to hospitals that no man should be a member of the attending staff unless

he is a member in good standing in the County and the State Medical Society.

In regard to the proposed questionnaire Dr. Beecher said the committee recommended the following form, the answers to be under oath:

Do you own real property?
Are you or any of your family employed?
Have you a bank account?
State your income.
How many dependents?
Are there extenuating circumstances in your case which should modify our rules relative to free treatment?

and that the committee recommended that such questionnaire be sent to the various hospital authorities in the state, asking them to adopt the same in connection with each application for free service by the attending staff.

In regard to the resolution adopted in 1908, Dr. Beecher quoted the following from the records of the 1908 meeting of the Vermont State Medical Society and stated the committee recommended the adoption of the same:

> "On and after the first day of January, 1909, no member of this society shall accept the position of club, society, lodge, or fraternal organization physician, or agree, or continue to do any medical or surgical work for any club, society, lodge or fraternal organization at a less rate than the regular or customary charges for like services rendered by other physicians in the same locality for patients not members of such clubs, society, lodge, or fraternal organization.
>
> "Also, that in no case shall any physician agree to attend the families of the members of such club, society, lodge, or fraternal organization, at half price or less price than the regular rate.
>
> "Nothing in this section shall be construed as preventing any member from attending the worthy poor, or to give free services to those too poor to pay anything.
>
> "Any violation of this article shall be considered unprofessional conduct, and it shall be the duty of the House of Delegates to expel such members when proof of such conduct shall be presented to them."

Dr. Beecher stated that in regard to the attending staffs of hospitals, the committee recommends to the authorities of the hospitals in the state that they admit to their attending staffs only those members of the state and county societies who are in good standing.

These matters were discussed at length by Dr. Quinn, Dr. Beecher, and Dr. Martyn.

Dr. Seth Martin suggested the resolution be amended to include towns, villages and cities, as well as lodges, fraternal organizations, etc., but no action was taken on this suggestion.

Further discussion by Dr. Lawliss, Dr. Wark, Dr. Patch, Dr. Ricker, and Dr. Seeley.

Dr. Ricker stated that the resolution quoted could not be adopted as an amendment to the Constitution and By-Laws for another year, that the secretary might supply the county societies with a copy of the same, and that next year the county society delegates should be present with positive ideas on what can be done.

Dr. Beecher added that this resolution would continue as a resolution, and would be introduced for action next year as an amendment to the Constitution, in regard to the eligibility of a man doing contract work at less than regular rates.

Dr. Quinn raised the question as to where such action would have to originate, to which Dr. Beecher replied: "Anybody could introduce proof of such conduct in the House of Delegates, and the House of Delegates could decide whether it would permit members complained of to maintain their membership."

Dr. Quinn felt that this should be amended to have such action come by direct vote, from the county society of the county in which such man practices.

This last was discussed at length by Dr. Ricker, Dr. Wark, Dr. Seeley and Dr. Beecher.

Dr. Beecher moved the adoption of the recommendation pertaining to the proposed questionnaire. Motion seconded, and so voted.

Dr. Beecher moved that the resolution read, and adopted in 1908, be considered as an amendment to the Constitution, to be acted on next year. Motion seconded, and so voted.

In regard to admission to hospital staffs, Dr. Beecher moved that the hospitals be requested to admit to their attending staffs only those in good standing in the county and state societies. Motion seconded, and so voted.

On motion, seconded and carried, the meeting adjourned.

MISCELLANY

VERMONT DEPARTMENT OF PUBLIC HEALTH

SEPTEMBER, 1934

The incidence of communicable diseases reported during the month is as follows: chicken pox 32, diphtheria 1, infantile paralysis 1, measles 3, mumps 3, scarlet fever 31, typhoid fever 5, undulant fever 1, whooping cough 109 and tuberculosis 8.

The Laboratory of Hygiene made a total of 1,510 examinations in September, classified according to the following tabulation:

Examinations	for	diphtheria bacilli	56
"	"	Widal reaction of typhoid fever	28
"	"	undulant fever	27
"	"	gonococci in pus	151
"	"	tubercle bacilli	164
"	"	syphilis	493
"	of	water, chemical and bacteriological	138
"	"	water, bacteriological	222
"	"	milk, market	152
"	"	milk, submitted for chemical only	4

Examinations of milk, submitted for microscopical only	4
" " foods	9
" " drugs	2
" for courts, autopsies	5
" " courts, miscellaneous	17
" miscellaneous	37
Autopsies to complete death returns	1

Forty-three new cases of gonorrhea and twenty-two new cases of syphilis were reported to the Division of Communicable Diseases. Four hundred and eighty-nine Wassermann outfits and 364 gonorrheal slides were distributed.

The Director of the Division of Tuberculosis conducted group conferences with teachers in all parts of the state, in coöperation with the Department of Education and District Superintendents. These conferences are being held for the purpose of preparing a course in Health Education suitable for rural and small village schools. Ten thousand Modern Health Crusaders were printed and distributed.

The nurses of the Division of Poliomyelitis After-Care visited 199 patients in September, and made 218 home visits. Fifty-six pieces of apparatus were fitted, seven pieces of apparatus altered, and twenty-one orthopedic corrections made to shoes by this Division.

THE ADJUSTMENT OF CHILDREN WITH DEFECTIVE VISION

Emotional adjustment, as well as relief of eyestrain, is afforded children with seriously defective vision in the special classes which are now provided for them in the public schools of 142 cities throughout the United States, it is pointed out by Catherine A. Flanigan in the current issue of The Sight-Saving Review, quarterly journal of the National Society for the Prevention of Blindness. Writing on "The Sight-Saving Class as a Mental Hygiene Measure," Miss Flanigan says:

"That the sight-saving class offers very definite aids in the emotional as well as the physical adjustments of its children has been recognized by those coming in contact with its operation. Of course, not all children who come to a sight-saving class are unhappy victims of their environment. Their reactions to their handicap may be very fine, having been aided by understanding and sympathetic parents and teachers. However, even these children may benefit so greatly by an improved physical environment that the adjustments are simpler.

"Children who are eligible for these classes are those with permanently low vision, those with progressive eye defects or diseases, and those whose vision may deteriorate under normal school conditions. They enter a sight-saving class ordinarily with one of three types of school history. First, there are the children who have fought their way through several years of school work in spite of their handicap. They may have been successful at the expense of great nerve and eyestrain, or they may have failed once or many times. This late entrance may be due to the lack of previous opportunity because of the lack of a sight-saving class, or it may be that, because of inadequate medical examination, the parent or teacher has 'just discovered' the cause of the strain or failure. The second type includes those children who, during their school life, suddenly develop an eye difficulty, due either to disease or accident. Thirdly, we have those children who have had an eye difficulty since birth or early childhood and who enter the sight-saving class without previous school experiences.

"To the child with defective vision, work in the regular grade with educational media unsuited to his needs may cause a great deal of eyestrain, with the attendant undesirable reactions, nervousness, fatigue, and increased eye difficulty. By use of the proper materials this strain is lessened or eliminated in sight-saving classes. Textbooks are printed on unglazed paper in 24-point type; and in order to provide the children with the desirable amount of research material and to supplement their own limited reading, much reading aloud by the teacher is done in a sight-saving class. Movable seats make it possible for the children to get as close to the board as necessary, very large chalk and large manuscript writing (which has few acute angles) and correct spacing between lines and letters eliminate the strain of blackboard work. Special maps and pictures, large in size, distinct in outline, clear in color, and with a vast amount of detail omitted, provide these children with the illustrative material needed.

"In the sight-saving class, as in every school situation, the really gifted child presents the gravest problem. But the sight-saving class teacher can teach him to use all the tools at his command; she can often provide readers to bring to him the material he cannot find for himself; she can emphasize the value of the radio with its wealth of information, inspiration and the beauties of life—travel, religion, music, poetry — and the typewriter to record his thoughts without eyestrain. Perhaps she can give him a real courage and faith in his ability to live up to his gifts. If the teacher can do this, the mental hygiene ideal may be more nearly realized, that 'Happiness comes from doing and exercising one's creative faculties, whatever they may be.'

"One child, an introvert type, may tend to become more and more of a recluse.

"The extrovert child frequently assumes a superior attitude to cover his inability to succeed. . . . In most cases parents are to blame for the acquiring of this complex.

"In our dealings with maladjusted children we find all too frequently that we are dealing with problem parents. We cannot hope to adjust the child satisfactorily without the coöperation of his parents."—Bulletin of *The National Society for the Prevention of Blindness, Inc.*

CASE RECORDS
of the
MASSACHUSETTS GENERAL HOSPITAL

ANTE MORTEM AND POST MORTEM RECORDS AS USED IN WEEKLY CLINICAL-PATHOLOGIC EXERCISES

EDITED BY RICHARD C. CABOT, M.D.

CASE 20431

PRESENTATION OF CASE

A fifty-two year old Irish car inspector entered complaining of cough and dyspnea of one month's duration.

Present illness. During the past winter, approximately six months before entry, he developed a cold associated with cough and expectoration. The sputum varied in amount but was usually increased in the morning. It was yellowish in color and sour tasting. There was no nasal discharge or sore throat associated with it. These symptoms persisted during the past six months and in addition he noticed increasing breathlessness, especially on exertion. Recently he was forced to use two pillows at night. One month before admission following a drenching from the rain he developed rheumatic pains in the left arm, a tightness in his chest, and increased difficulty in breathing. He had no chill or bloody sputum at this time. He stopped working for four days and then remained at work until the time of admission. During the past week however his condition became worse and was associated with several "chilly feelings". The feeling of tightness in the left chest, especially around the nipple, was aggravated by coughing and deep inspiration. His appetite was very poor and he developed rather severe frontal headaches which he had never had before. During the two days before admission the pain and tightness in his chest prevented him from sleeping and he was forced to lie on his right side in order to rest. The night before entry while at work he developed a severe shaking chill. His cough increased and was associated with blood-streaked sputum. He lost some weight but did not know exactly how much.

Family history. His father had had asthma. He died of unknown cause. His mother died after an operation for cancer of the stomach. Eight siblings were living and well. There was no history of tuberculosis or cardiovascular disease.

Marital history. He had been married twenty-one years. His wife was living and well. There were no miscarriages.

Occupational history. He had worked as a car inspector for twelve years. His hours of duty were from 10 p.m. to 6 a.m. and he was often exposed to rain and cold weather.

Past history. For the past three years he had frequency ten to fifteen times at night while on duty and also during his sleeping hours in the day. He had had several attacks of gonorrhea beginning at the age of twenty-two. These cleared up in a few days with treatment. He later developed prostatitis and acute retention, requiring catheterization.

Physical examination showed a well-developed and nourished elderly man lying propped up in bed and breathing quite rapidly. There was no cyanosis. The lungs showed loud rough inspiratory breath sounds and decreased tactile fremitus in the left midlung field anteriorly and slight dullness with occasional rhonchi over the lower two thirds of both lung fields. The blood pressure was 120/60. The heart was not remarkable. The fingers were clubbed.

The temperature was 103.4°, the pulse 90, the respirations 23.

Laboratory examination of the urine was negative. The blood showed a red cell count of 3,880,000, with a hemoglobin of 60 per cent. The white cell count was 15,000, 82 per cent polymorphonuclears. The smear showed marked achromia. The platelets appeared normal. One sputum examination was done. It showed a moderate amount of thick purulent material. A gram stain showed streptococci and staphylococci. No red cells or tubercle bacilli were found. The stools were negative. A Hinton test was positive, a Wassermann weakly positive.

Electrocardiogram showed normal rhythm, T waves upright in all leads, and P_3 slightly inverted.

X-ray examination of the chest showed mottled dullness extending from the anterior end of the left second rib to the diaphragm, denser along the border of the heart. It faded out toward the periphery. The left costophrenic angle was obliterated. The left diaphragm was limited in excursion. The remainder of the lung fields was essentially clear. The heart and mediastinum remained in position. The aorta was tortuous, the arch being only slightly wider than usual.

His condition remained unimproved. The temperature was slightly picket fence in character and for the first ten days ranged between 100 and 103°. It gradually fell during the third and fourth weeks, ranging between 99 and 100°. He was receiving KI. During the second week his white blood cell count began to rise, reaching 21,000, 72 per cent of which were polymorphonuclears. The signs in his chest changed somewhat. The left top was almost completely consolidated, while the left base had cleared. The right base remained about the same. X-ray examination showed that the dullness in the left lower lung field had almost completely disappeared. The upper half of the left lung, however, was now obscured by homogeneous some-

what mottled dullness. The heart shadow and trachea were possibly slightly displaced to the left. The right lung field was clear. Ten days after this report, approximately one month after admission, another film showed that the dullness in the left lung field was still present. There were noted, however, two areas of diminished density in the central portion which suggested cavity. The trachea was somewhat displaced to this side. A bronchoscopic examination at this time showed that the trachea was normal except for thick foul secretion. The entire left bronchial tree was filled with some secretion. The lower left bronchus appeared definitely narrowed. The lining was reddened and bled easily. The patient coughed considerably and was not coöperative. This combined with the bleeding made the examination unsatisfactory. He gradually went downhill, raised a tremendous amount of foul sputum, and complained of a great deal of pain in his left chest and low in the axilla. Râles were present throughout both lungs, except at the right apex. He died seven weeks after admission.

Differential Diagnosis

Dr. Donald S. King: This is the picture of a gradually increasing bronchial obstruction eventually going on to a suppurative process in the lobe of the lung supplied by that bronchus. The history is consistent with such a lesion, in that there is gradually increasing cough, expectoration and dyspnea, and as the suppuration sets in, fever, chills and blood-streaked sputum, with at the end large amounts of foul sputum.

The definite venereal infections in the past history are worthy of note.

The physical signs are recorded somewhat unsatisfactorily. Just what is meant by "loud, rough, inspiratory breath sounds" is difficult to say. One is interested in knowing whether the breathing is bronchial in character and whether by "rough sounds" is meant the definite presence of râles; and if râles, whether they are musical or moist. Nevertheless the signs as given are consistent with a partial obstruction in the left main bronchus, even if there is not a description of a "unilateral wheeze", which is the characteristic finding.

The laboratory examinations show the blood findings consistent with any acute infection. The sputum examination showed no tubercle bacilli on one test. In passing it should be emphasized that one test never rules out tuberculosis. The Hinton test on the blood was positive and the Wassermann weakly positive.

The x-rays are perfectly consistent with an increasing bronchial obstruction leading eventually to complete atelectasis of the left upper lobe, and final cavity formation in the collapsed areas. The x-ray diagnosis is based on the triangular shadow of the upper lobe and the gradual displacement of the trachea toward the affected side. From the x-ray plates one would assume that there had been partial atelectasis of the left lower lobe which eventually cleared.

Bronchoscopic examination showed a definite inflammation in the entire left bronchus and a narrowing of the left lower lobe bronchus. There was at this examination no evidence of outcropping or other definite signs of bronchial tumor. No true ulceration is described.

We shall assume then that the picture is consistent with increasing bronchial obstruction and the point to be settled is that of diagnosis of the bronchial lesion. Knowing the habits of the person who arranges the cases for these clinics, I know that I am taking a great chance in not making a diagnosis of carcinoma of the lung, since this was proved to be the correct diagnosis in the two previous cases, and in the past the three cases have usually all had the same diagnosis. Nevertheless the evidence as it stands seems to me to make the diagnosis of syphilis of the bronchus and not neoplasm. This diagnosis is based on the bronchoscopic findings, which are more consistent with an inflammatory process than with neoplasm; the positive complement fixation tests; and a sputum assumed to be negative for tuberculosis.

We have in the past seen a number of cases of syphilis involving the bronchial tree with changes in the lung due to bronchial obstruction, and I think there is very little doubt that one is justified in certain cases in making this diagnosis. There is, however, doubt in the minds of many clinicians as to whether one is justified in making the diagnosis of syphilis of the lung itself. In my experience the one case where we have been practically sure that a syphilitic pulmonary process existed is that shown in this x-ray. The patient came into the wards of the hospital with a diagnosis of malignancy of the testicle. A chest x-ray showed this sharply defined, rounded shadow in the right lung field. It was believed that the condition was a malignancy of the testicle with metastases to the lung, and operation was advised. The pathologic report on the testicle was that of gumma and it was then assumed that the process in the lung was also a gumma. The patient was therefore put on antiluetic treatment and the series of x-rays taken during the following year showed an almost complete disappearance of the pulmonary process.

We have also had cases of tuberculous ulceration of the bronchus with atelectasis. The following series of x-ray plates shows the development of such a process beginning with a small area of atelectasis at the left base and ending in complete atelectasis of the left lung. We have

also had cases of atelectasis of the lung due to pressure of a syphilitic aneurysm on the main bronchus, but although the x-ray film shows the aortic arch to be "slightly wider than usual" there is no evidence of aneurysm. At least one of these cases died with what was supposed to be a severe pulmonary hemorrhage.

My diagnosis in the case presented to me is syphilis of the left bronchus with atelectasis and suppuration in the left upper lobe.

Clinical Diagnosis

Carcinoma of the lung with pulmonary abscesses.

Dr. King's Diagnosis

Syphilis of the left bronchus with atelectasis and suppuration in the left upper lobe.

Anatomic Diagnoses

Chronic bronchitis and bronchiectasis, left upper lobe.
Organized pneumonia, left upper lobe.
? Syphilis of the lung.
Empyema, left.
Anthracosis.
Luetic aortitis.

Pathologic Discussion

Dr. Tracy B. Mallory: Dr. King has rather turned the tables on the pathology department in this case by making a diagnosis which satisfactorily accounts for both the clinical and pathologic findings and which can certainly not be disproved. Unfortunately the possibility did not even occur to us at the time the autopsy was done and no material was put through for a spirochete stain.

The significant pulmonary findings were limited to the left side of the chest, where the upper half of the pleural cavity was obliterated by dense fibrous adhesions, the lower half filled with over a liter of turbid yellow fluid. The left lower lobe was nearly completely collapsed, but otherwise negative. The upper lobe on that side consisted of a mass of friable sponge-like tissue filled with cavities varying from two to twenty millimeters in diameter. These were for the most part empty, though some contained a purulent exudate which was not noticeably foul. The intervening tissue was totally atelectatic, moist, and deeply anthracotic.

Microscopic examination shows extensive changes in the bronchi. The larger ones are moderately to markedly narrowed by an inflammatory exudate consisting largely of lymphocytes and plasma cells. There is a distinct increase of fibrous tissue in the deeper layers of the mucosa. The smaller bronchi are slightly but uniformly dilated and show a similar inflammatory process. There are other cavities lined with granulation tissue in which no traces of bronchial wall can be made out. The intervening pulmonary tissue is nowhere normal. In some places it shows only collapse and epithelialization of the alveoli. In other areas a well-marked organizing pneumonia can be made out. Still other extensive areas are composed only of dense scar tissue. There is an intense anthracotic deposit which to some extent obscures the histologic details. Nowhere throughout the lung can any picture suggestive of a tubercle be found. On the other hand scattered throughout the areas of inflammatory infiltration occasional foreign body giant cells are seen. The picture is certainly consistent with syphilis though it cannot be considered pathognomonic. Some confirmatory evidence for the diagnosis of syphilis was presented by the aorta which showed both grossly and microscopically characteristic findings of luetic aortitis.

CASE 20432

Presentation of Case

A thirty-eight year old Polish Jewess entered complaining of right upper quadrant pain.

The patient was in good health until eight months before entry, when she began to have attacks of pain in the right upper quadrant radiating to the angle of the right scapula. The pain was colicky in nature and was usually brought on by a heavy fatty meal. The pain lasted from a few minutes to an hour and was followed by vomiting. It usually occurred immediately after meals but occasionally occurred two or three hours later. There was no jaundice, clay-colored stools or dark urine at this time. These symptoms continued for about two months, during which time her appetite became poor. She entered a hospital where a cholecystectomy was performed. The patient believed that no stones were found. At the same time an ovarian cyst was removed. She had a very stormy postoperative convalescence associated with a mild bronchopneumonia. She was in a hospital for about eight weeks. She was fairly well relieved by the operation, but approximately three weeks later she developed a steady dull lower back pain. She also began to vomit once or twice a day, usually after meals. She was constipated and required cathartics. Her appetite continued to be poor and she continued to vomit daily. Approximately four months before entry she developed pain in the right flank and right upper quadrant, just under the costal margin, which radiated somewhat around to the back but not so high as the scapula. It also radiated anteriorly across the epigastrium and over the transverse colon. The pain, which was sharp and colicky in nature, came on after meals and lasted from ten to twenty minutes. It oc-

curred three or four times a day and seemed to shoot down her right leg as far as the knee. During the past eight months she had lost about seventy pounds in weight. Three weeks before entry her skin itched for a while. Her friends observed that her skin had a yellowish tint. Her stools became clay colored and her urine dark brown in color. At this time she entered another hospital where a fluoroscopic examination showed a defect in the stomach due to extrinsic pressure. The pressure was the result of a mass, approximately the size of a small fist, situated high in the epigastrium. The stomach rolled over this mass as the patient turned. A lateral film showed the mass producing a pressure seat in the duodenum. She left that hospital against advice and entered here.

Her family history is non-contributory.

She had had an appendectomy nineteen years before admission, and an ectopic pregnancy ten years before admission.

Her husband was living and well. She had two children, one living and well; the other had rheumatic heart disease. She had seven self-induced abortions.

Physical examination showed a fairly well-developed, emaciated, deeply jaundiced woman, lying on her right side with her knees drawn up, complaining of right upper quadrant pain. The sclerae were yellow. The skin was dry. The pupils were small and fixed to light. The heart and lungs were not remarkable. The abdomen showed a firm, rounded, slightly tender mass in the epigastrium which moved poorly with respiration and was apparently not continuous with the firm very tender edge of the liver felt two to five centimeters below the costal margin.

The temperature was 98°, the pulse 110. The respirations were 20.

Laboratory examination of the blood showed a red cell count of 2,730,000, with a hemoglobin of 70 per cent, and a white cell count of 20,000 with 80 per cent polymorphonuclears. The urine showed a specific gravity of 1.008 to 1.014, a trace of albumin, and a positive bile test. In one examination there were acetone bodies and diacetic acid present. The stools were dark brown in color and showed a positive guaiac in eight out of nine examinations.

Her course was steadily downhill. The jaundice varied in intensity from day to day. Intravenous glucose and subcutaneous saline were given. She died twenty days after admission.

DIFFERENTIAL DIAGNOSIS

DR. F. DENNETTE ADAMS: The history of pain in the right upper quadrant, colicky in nature, with radiation to the scapula, induced by food and associated with vomiting is certainly typical of cholecystitis with stones, particularly in a woman of thirty-eight. In the absence of any contraindication it was justifiable to explore. The stormy convalescence might well have been due to too much surgery. If removal of the ovarian cyst was not a simple procedure it might have been better judgment, since it presumably was giving no symptoms, to have limited surgery to removal of the gall bladder and planned a second operation later. Removal of the gall bladder is usually all the average patient can stand, barring of course some simple additional procedure, such as routine appendectomy.

The dull back pain could be explained on the basis of strain, caused by lifting and turning of the patient while under anesthesia, although it would be expected earlier than three weeks after operation. It could be caused by lying on a poorly supported mattress or by strain of weakened ligaments and muscles when the patient was first allowed out of bed.

The vomiting and constipation suggest partial obstruction, although pain and distention would also be expected. Pain, according to the history, began four months after operation. We cannot say that its character is typical of any particular condition, although it apparently is sufficiently sharp to suggest stone. With the gall bladder removed one would naturally think of stone in the common duct and there is later the added evidence of jaundice. The x-ray evidence introduces the element of tumor and its location suggests the pancreas. Of marked importance is the rapid loss of weight, frequently an outstanding feature of cancer of the pancreas. A distended gall bladder may cause a pressure defect in the stomach outline, but in this case that organ has been removed.

The small fixed pupils might have been due to morphia, a reasonable assumption in a patient obviously suffering as was this woman. The liver enlargement was doubtless due to backing up of bile.

The hemoglobin of 70 per cent, with a red cell count of 2,730,000, bears out what Dr. Mallory, in discussing the previous case, said about the uniformly high color indices reported in this hospital. There is nothing, so far, to account for the high leukocyte count. One would expect a higher specific gravity in the urine in a patient so markedly emaciated and probably dehydrated. Possibly the specimens were obtained after intravenous fluids had been started. The diacetic acid and acetone were doubtless the result of vomiting and starvation. If they were present only in the first specimen, an assumption which the record does not bring out, they were cleared by the intravenous glucose.

A PHYSICIAN: The blood sugar was probably normal?

DR. ADAMS: It was not reported. It probably was normal.

A PHYSICIAN: Are blood smears made routinely?

DR. TRACY B. MALLORY: Yes, they are always made.

DR. ADAMS: There are four common condi-

tions to be considered in this patient: stone in the common duct, biliary cirrhosis, cancer of the pancreas, and cancer elsewhere in the gastro-intestinal tract.

Pain such as this patient has had, with jaundice of the intermittent type, is characteristic of stone in the common duct. I think the observation that the jaundice varied in intensity from day to day is open to some question, for this would be a difficult thing to determine without serological tests. The mass could be inflammatory reaction around a stone in the ampulla but is probably too large and too readily felt. Positive guaiacs could not be explained unless there is introduced the added diagnosis of duodenal ulcer, which not infrequently occurs in association with gall bladder disease. One would expect, too, bouts of fever and more evidence of infection. There is little evidence to support a diagnosis of biliary cirrhosis. Extent of pain, intensity of jaundice, general symptomatology, relatively small size of liver, and presence of the mass exclude this disease as the primary condition. Neither the cirrhosis nor stone could account for the low back and leg pain.

Some type of malignant disease will best explain all of the symptoms. Cancer of the pancreas commonly produces pain, severe jaundice, and is noted for causing a rapid downhill course with marked loss of weight and even emaciation. It metastasizes readily to all parts of the body so that secondary cancer of the spine would give us a reason for the backache. We then have only the positive guaiacs unaccounted for on the basis of this diagnosis, and it might be conceivable that pancreatic malignancy involved the duodenal wall and thus produced bleeding.

Primary cancer of the stomach appears to be ruled out by x-ray. If it does exist, one must assume metastases in the biliary tract as a cause of jaundice.

Primary cancer of the duodenum is rare. Lymphoblastoma in any obscure abdominal condition must always be thought of. It cannot be excluded in this case. The spleen is usually but not necessarily enlarged in abdominal lymphoblastoma. Some inflammatory condition, secondary possibly to previous operation, should be mentioned. The mass would be omental, one would expect fever, and probably not so severe a decline in general condition.

It seems to me that, when the evidence is all balanced, cancer of the pancreas could most readily explain the clinical picture. This conclusion is based primarily on the pain, roentgen description of the mass, the jaundice and the rapid general decline.

DR. MALLORY: Cancer of the pancreas can and every now and then does erode into the duodenum and give an ulcerating lesion of the duodenum itself which might explain the positive guaiacs. On the other hand, any patient who has jaundice may have positive guaiacs in his stools and there may be no intestinal lesion to show for it at all. I have seen a dozen cases of jaundice with repeatedly positive guaiacs, and sometimes gross blood in the stools, in whom the intestinal tract was negative. The pain in the back certainly sometimes does occur in carcinoma of the pancreas. I remember one case of lower back pain which was treated by the orthopedic service for six months. Finally she died and a carcinoma of the pancreas was found.

DR. ADAMS: The mistake is usually the opposite of that—more patients are operated on for such things as some pelvic or abdominal disorder whose backache is due to an orthopedic condition.

A PHYSICIAN: Can a duodenal ulcer involve the papilla?

DR. MALLORY: Rarely, if ever, I should say. Even ulcers of the posterior wall of the duodenum are generally well above the ampulla of Vater and I have never seen the bile duct involved in the process.

A PHYSICIAN: Is it not true that the common duct runs through the head of the pancreas?

DR. MALLORY: Yes, it does. It runs off, however, at a sharp angle. I have never seen a duodenal ulcer produce jaundice.

CLINICAL DIAGNOSES

Carcinoma of pancreas.
Jaundice.
? Carcinoma of liver.

DR. ADAMS'S DIAGNOSIS

Cancer of the pancreas with metastases to spine and probably elsewhere.

ANATOMIC DIAGNOSES

Adenocarcinoma of head of pancreas with metastases to kidney, liver, brain, retroperitoneal lymph nodes, and erosion of the duodenum, common duct and hepatic artery.
Biliary cirrhosis, slight.
Jaundice.
Operative scars: Cholecystectomy; appendectomy; right salpingo-oöphorectomy.
Peritonitis, chronic fibrous.
Pleuritis, chronic fibrous, bilateral.
Ascites, slight.
Hydrothorax, left.
? Subcutaneous neurofibromas, right chest and lower abdomen.
Peripheral edema.

PATHOLOGIC DISCUSSION

DR. MALLORY: The autopsy did show a cancer of the head of the pancreas, a large one. It had eroded into the duodenum and had in-

volved the common bile duct and the papilla so that a bile fistula had developed through the cancer and out into this ulcer in the duodenum which, I think, explains the fluctuation of the jaundice.

DR. ADAMS: But the mass was in the head of the pancreas?

DR. MALLORY: Yes.

A PHYSICIAN: Is it true that a carcinoma of the head of the pancreas may give rise to diabetes?

DR. MALLORY: I have seen cases associated with diabetes, but in the average case the blood sugar is normal—once in a while it will not be, but in nineteen cases out of twenty it will be. The other possibility is the influence of deficient external secretion of the pancreas. Evidence of this is not looked for very often in this hospital. Marked steatorrhea is certainly uncommon in our experience. If it is present in marked degree, the most routine examination of the feces would probably show it, and we have actually picked it up from time to time.

A PHYSICIAN: The point is, does the pancreas produce its ferments and are they able to pass into the intestine?

DR. MALLORY: Sometimes it succeeds in doing it perfectly well. I think usually it does. Sometimes it does not. I agree that valuable information could be obtained by making a more careful examination of this point.

DR. ADAMS: The one outstanding feature of a case of cancer of the pancreas is the fact that when it starts to go downhill it is apt to decline rapidly. These patients lose weight and strength and die usually in a relatively short time.

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THE VISIT OF THE AMERICAN COLLEGE OF SURGEONS

THROUGHOUT the past week the American College of Surgeons has been in our midst, and as always countless clinics have been given, and addresses have been delivered. It has been well done, and especially worth while. Foreign guests came to give and perhaps learn, and there were meetings for lay education and for discussion of hospital standards and hospital betterment. Of all this, without going into detail, one may only praise the extent of the enterprise and the executive ability shown in achieving its ends.

Somewhat out of the ordinary, however, are two matters touched upon in Dr. Greenough's excellent inaugural address. First, a frank facing of the problem of hospital costs for the less well-to-do, and a recognition of the fact (logically inescapable as a fact finding) that for vast numbers of people under present conditions the cost of hospitalization in severe illness or in the case of a major surgical operation cannot be met as a current expenditure. This being so, as he points out, the only alternative to a collapse of independent high-grade people into the class of indigents is some form of prepayment arrangement. One may as well say insurance, for that it must be, by definition. But Dr. Greenough clearly voiced the opinion of the profession that such adjustment of expenditure to paying ability must not be exploited. The profession, not the commercial exploiter, should be the director of such "insurance".

Already we have seen exploitation of this sort. It is condemned by us without reserve, and all will agree with Dr. Greenough in his treatment of the subject. But, unfortunately, in our reaction against such commercial abuses, we are in danger of forgetting the problem still before us.

Some scheme of adjustment of income to expense we must have in fairness to the public and the profession. This implies that the profession should work out the means rather than that unworthy schemes should be "put over" on them. And there lies the danger!

The College seems to be facing this problem squarely, though with no detailed panacea to urge on us at this time.

Probably a field survey of experiments in this line, made and in the making in many communities, should come before any hard and fast recommendations can be offered as to details.

The second matter in Dr. Greenough's address which should have especial mention here, is the coming of the College into the field of Industrial Surgery.

There is no question but that there has been vast wastage of life and of usefulness from inadequate surgical care in this field, due to external conditions very often, but sometimes to bad surgery.

Fortified by several years of quiet investigation, Dr. Besley's "Board of Industrial Medicine and Traumatic Surgery" made a report, issued this spring as a bulletin of the College, giving, first, the best résumé of current conditions so far brought to our attention; secondly, a minimum standard of equipment and organization for the performance of good work; and thirdly, the minimum standard of training and experience fairly to be required of men assuming professional responsibility for such serious work.

Very lately, contact has been made by the College with a duly qualified insurance "council" interested as we all are in seeing that the workman injured in industry shall get the best of care, "sold" on the proposition that the best surgical care is the cheapest in the end.

There is reason to believe that these two

groups, working together, may do much in raising standards of efficient care.

And so the College, besides its more obvious activities, instanced in this recent meeting, is going forward quietly working to raise standards of surgical training and fitness, standards of hospital equipment, staff quality, administration, standards of diagnosis and care of malignant disease, standards of fracture treatment, and, now, standards of industrial surgery.

If the College means anything it means insistence on *quality* and, in the results of such insistence, it seems to have shown no little success.

THE PHYSICIANS' ART SOCIETY

DEMONSTRATIONS of artistic ability by physicians have been of interest to many, as is shown by the visitors to the exhibition of creative and applied art by doctors, staged on several occasions in the Boston Medical Library. The exhibition of last year was especially good. Similar collections have been shown in New York which have also been admired.

As one of the entertainments provided for the visiting surgeons of last week, our local medical artists lent to the Boston Medical Library a collection of some of the best productions of the members of this guild. Like other craftsmen, the local devotees to this avocation have formed an association, for the apparent purpose of stimulating greater excellence in this field, under the designation of the Physicians' Art Society, and will convene in an annual meeting at the Library, October 29, at 8:30 P.M. for the election of officers*. On this occasion the guest speaker will be Mr. C. Howard Walker, a well-known architect.

The association will continue the display now at the library for another week, and extends a cordial invitation to all who are interested to visit the exhibition and attend the annual meeting. Mr. Walker is an especially interesting speaker and those who can arrange to accept this invitation are assured of an enjoyable evening.

*See page 798.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

TREMAINE, MYRON J. B.A., M.D. Northwestern University Medical School 1932. Formerly: Medical House Officer, Peter Bent Brigham Hospital. His subject is "Subacute Pick's Disease (Polyserositis) with Polyarthritis and Glomerulonephritis. A Report of Two Fatal Cases." Page 754. Address: Passavant Hospital, Chicago, Illinois.

BARNEY, J. DELLINGER. A.B., M.D. Harvard University Medical School 1904. F.A.C.S. Chief of Service, Urological Department, Massachusetts General Hospital. Assistant Professor of Genito-Urinary Surgery, Harvard Medical School. His subject is "The Operative Relief of Extensive Cicatrization of the Male Urethra and Perineum." Page 759. Address: 87 Marlboro Street, Boston, Massachusetts.

HARE, HUGH F. M.D. Harvard University Medical School 1928. Formerly: Medical Interne, and Interne in Roentgenology at University of Michigan; Assistant Resident in Roentgenology at Harvard Medical School. Now: Radiologist at Lahey Clinic, and Consulting Roentgenologist for Middlesex County Sanatorium. Address: Lahey Clinic, Boston, Massachusetts. Associated with him is

DAVENPORT, LOWREY F. M.D. Rochester Medical School 1931. Assistant Superintendent, Middlesex County Sanatorium. Formerly: Medical Interne, Peter Bent Brigham Hospital; Fellow in Medical Research at Harvard. Address: Middlesex County Sanatorium, Waltham, Massachusetts. Their subject is "Phrenic Neurectomy in Pulmonary Tuberculosis. The Evaluation of Early Effects." Page 762.

CHADWICK, HENRY D. M.D. Harvard University Medical School 1895. Formerly: Superintendent of Vermont Sanatorium; Superintendent of Westfield State Sanatorium; and Tuberculosis Controller, Detroit, Michigan. Now: Massachusetts State Commissioner of Public Health. Address: 1063 Commonwealth Avenue, Newtonville, Massachusetts. Associated with him is

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EFFICIENT SURGICAL SERVICE FOR THE WHOLE COMMUNITY*

BY ROBERT B. GREENOUGH, M.D.

UNDER its broad charter the American College of Surgeons has brought about outstanding improvements in the practice of surgery in the twenty-two years of its existence. It has set up qualifications for fellowship to ensure that every Fellow is in fact worthy and competent to practice his designated branch of the art of surgery. Through its hospital standardization department, and its special committees, the quality of hospital service and of surgical service supplied to the community has been greatly improved.

Profound changes, however, have been taking place in our civilization in the past twenty years. The mechanical age, with its mass production methods, and the unprecedented advances of science, have brought new problems in political economy, and have forced us to discard many of our older methods and ideals, and to seek new patterns on which to build our economic structure.

The medical profession has resisted the attempt to extend mass-production principles to the practice of medicine. It is the belief of the profession that the peculiarly personal and fiduciary nature of the relation between physician and patient is too precious to be jeopardized by radical changes of a socialistic nature. The individual is dependent on his medical adviser for the maintenance of his health and functional efficiency. In the selection of the physician or the hospital in which he has confidence rests the first step in that relationship of trust which plays so great a part in medical practice; a trusteeship—which is safeguarded by the Hippocratic oath and the code of ethics of the medical profession.

In the past five years of depression and unemployment, many of the community resources formerly available for the care of the indigent sick have broken down. This extra burden has fallen upon the medical profession to supply this service without remuneration. To this call of humanity the profession has responded, but in so doing many physicians have themselves been brought near to the level of destitution. More effective methods of supplying medical and surgical service to the community and especially to the indigent and the lower-income groups of the population, and of providing suitable remuneration for those who give this service, constitute an immediate and urgent necessity. Not only is this needed for the benefit of the community, but for the preservation of the community's investment in the trained medical personnel, including all of the physicians, surgeons, dentists, hospitals and laboratories, nurses and technicians who are engaged in supplying medical service to the population.

This situation is of great concern to the surgeon, for the injuries and diseases which he is called upon to treat almost invariably require expensive hospitalization which not infrequently exhausts the patient's limited resources and reduces the professional remuneration to nothing more substantial than gratitude and goodwill.

To the surgeon the quality of service given to the community is of supreme importance. Few of the injuries or diseases he is called upon to treat are of the self-limited class or tend of themselves to spontaneous recovery. A great part of his work also is of an emergency character and deals with acute diseases and injuries in which delay is dangerous and the moment for efficient treatment is fleeting. What must be done, must be done not only promptly but correctly, or the patient's chances of recovery may be sacrificed.

It is for this reason that the qualifications of the surgeon for the work he is to do are of such great significance. Every graduate of a medical school and every physician licensed to practice in the different states has received instruction in the general principles of surgery, and in general practice the physician must be prepared to give surgical service in emergencies. The American College of Surgeons carries some 11,000 Fellows on its rolls, but it would be manifestly impossible for them to do all the surgical work of the country. The emergency surgical service supplied by the general practitioner is necessary to the community and deserves the widest recognition. For major surgical service, however, prolonged training, adequate laboratory and hospital facilities and the judgment and dexterity obtained through experience are required. These qualifications Fellowship in the American College of Surgeons is designed to certify.

Several other organizations exist for the certification of specialists in other lines of medical activity, but an amalgamation of all of these different agencies under some central coördinating influence is to be desired in order that the qualification and certification of specialists may be national in scope and reasonably uniform in its requirements.

The hospitals of the country supply another means for determining the qualifications of specialists in the different branches of medicine and surgery through appointments to their staffs. Hospital staffs are subdivided primarily into medical, surgical and obstetrical divisions, but in large hospitals fifteen or twenty different special clinics and services are often recognized. This classification which is provided by the hospitals may well be utilized in the preparation of any plans for providing more efficient surgical service to the community and since the hos-

*Abstract of Inaugural Address, American College of Surgeons, at Boston, October 15, 1934.

pitals themselves are an essential part of any such projects, they may well prove to be the most convenient units out of which plans for the provision of more efficient surgical service may be constructed.

It is an accepted principle that the medical and surgical care of the indigent sick is a community obligation. Only recently, and we hope temporarily, has it been necessary to call upon the state or the federal government for financial support of these community responsibilities.

The machinery through which these needs are ordinarily supplied includes city physicians, and city and county almshouses and community and charity hospitals with medical officers on a full-time salaried basis or giving part-time service with or without remuneration. State or local Public Health Departments are further provided to supply the community needs in the way of health-administration, sanitation, vital statistics and quarantine measures. The institutional care of the insane and of the tuberculous is also a medical activity of the local state government.

The problem of providing efficient service to the whole community is further complicated by the deplorable ignorance of the people in regard to what efficient service really implies. The sums expended annually for patent medicines and for the services of the quacks and cultists show that it is ignorance, rather than economic conditions, which leads people to such a waste of their resources. Knowledge of the basic facts of medical science must be more widely published and such educational campaigns must be carried on by the great national medical organizations and by the Public Health Services of the community or of the State.

There is need, too, for further postgraduate instruction of the medical profession and although this need is being met by many of the state medical organizations, there is yet more to do before the demands are satisfied.

From the point of view of their ability to pay for medical and surgical service, there are at least three classes of the community to be considered.

1. The indigent, who cannot pay at all.
2. Those of adequate means who can afford to pay for what they need.
3. The intermediate group of those of moderate means who can pay for minor medical service, but cannot finance unaided the expenses of serious illness or prolonged hospitalization within their restricted incomes.

The care of the indigent sick is recognized as an obligation on the community, but too often this community burden is placed on the shoulders of the physician alone and he is expected and permitted to care for the indigent sick without compensation.

The physician who serves the community should not be expected to stand in any different relation from that of other professional men such as lawyers or engineers who qualify for the public service.

This fact has recently been recognized by the federal government in providing and paying for the medical care in their homes or in the doctor's office, of the dependents in the FERA and the CWA. This principle should be maintained.

The medical and surgical care of the well-to-do is reasonably well organized at the present time. It is the great moderate-means class of the population, however, that fails most frequently to obtain efficient service. When serious illness comes to the moderate-means patient, staggering obligations in the way of debts must be assumed or the individual must lose his independence and become a burden on the community. It is to this group of the population that it has been proposed that the prepayment insurance principle be applied.

Voluntary or compulsory measures for health insurance have been instituted in many countries in the past thirty years. Some of these plans, as in Russia, involve the complete socialization and regimentation of medicine; a condition which is abhorrent to our Western civilization, and a form of practice which as "State medicine" is regarded as a menace to the best interests of the medical profession and of the community as well. Other plans, such as the British Health Insurance Act, involve less revolutionary changes and to this extent are looked upon with less disfavor.

For a country so large and so diversified in population and in resources as the United States, it is not to be expected that any single national health insurance project should prove everywhere satisfactory. The problem is at present essentially a local one to be studied and solved by the members of the individual communities and by trial and error, if by no other means. In these experiments the medical profession must take the lead.

The prepayment insurance principle appears to be in fact about the only way in which those of the moderate-means group can be expected to pay either the hospital or the physician for the medical and surgical services they need. Such projects as have been started experimentally have been restricted to relatively small and homogeneous groups of the population. Statewide plans of this nature have not yet been put into operation. To escape the dangers of commercialism and unfair competition, plans of this sort should include all of the medical and surgical agencies of the community which are qualified and willing to give this service. The College has further recommended that these plans should be "free from the intervention of commercial organizations operating for profit," in

order that the maximum amount of the fund may be available for the payment of the medical, surgical and hospital service which is supplied.

The moderate-means group includes all those with incomes above the indigent class and below the "well-to-do". It would not be unreasonable, however, to make a further subdivision of this large class into two smaller groups —(1) those on the *lower-level*, whose resources unaided, even on a prepayment basis, could not be expected to meet the entire cost of medical, surgical and hospital care, and (2) those of the *upper-level*, who can, through periodic payments, assure themselves of sufficient resources to obtain the services they need.

The difference between the amounts which the lower-level group can pay and the actual cost of the service must be obtained from other sources. In this case, as in the case of the indigent, this responsibility must devolve first upon the community.

The upper-level group of the moderate-means class can carry their own medical and surgical expenses, provided hospital accommodation and efficient medical and surgical service can be supplied to them on a minimum cost basis. Intermediate wards to provide such service have been widely developed in the last few years. Voluntary prepayment plans for hospital, or even for full medical and surgical, service can undoubtedly be developed in connection with such middle-rate services; but they should not be restricted to individuals or small groups. They should rather be organized as a coöperative community effort to avoid all suggestion of unfair competition.

Difficulty will be found in defining accurately the limits of these economic classes, and standards will vary in different communities. Whatever standards are adopted, however, must be rigidly enforced. Those who seek undeserved charity service at the expense of the destitute must be prevented from securing such advantages, and the enjoyment of moderate means accommodations and reduced fees should be rigidly restricted to those whose finances do not permit them to obtain the needed care in private practice.

The coöperation of other groups than the physicians is also to be desired in consideration of these plans. From the sociologists and economists much important information is to be obtained and a closer and more harmonious coöperation between these groups and the medical profession appears to be the great need of the present moment in order that each may contribute of their knowledge to the solution of perhaps the most important question which affects the physical welfare of the community in the present generation. Let us conclude, therefore, that further information must be obtained by controlled experiment in smaller communities before a wise program of action can be prepared.

The responsibility of industry to maintain adequate emergency medical and surgical service for its sick and injured employees is at present widely recognized. The Board of Industrial and Traumatic Surgery of the American College of Surgeons has contributed in no small degree to improving the quality of this service, by the establishment of minimum standards for industrial surgical services, based upon the fact that proper qualifications over and above that of the state license to practice medicine, must be required of those engaging in this special form of surgery.

Smaller industries and, in certain parts of the country, even those of larger size have frequently chosen to entrust the risks and expenses of industrial accidents and Workmen's Compensation requirements to commercial insurance companies or "carriers" organized to assume these obligations. It is not unreasonable of course to expect that the responsibility of the insurance company, under these conditions, should become precisely that of the original employer so far as goes the obligation to supply adequate and qualified surgical service in the emergency treatment of the industrial accident case, and in its subsequent supervision, to ensure that competent surgical care is given. For the moment, the most practical way to secure these qualifications is to encourage those hospitals and those surgeons who desire to do this form of surgical work to meet the minimum standard established by the Board of Industrial and Traumatic Surgery of the American College of Surgeons.

No single health insurance plan of national scope appears at present to be applicable to the conditions existing in this country. The matter is at present one for local study and experiment; in which the best medical and surgical ability in the community is needed, acting in coöperation with others qualified by their knowledge of economic conditions to join in the study of the problem.

Individuals of the lower-level income classes in the moderate-means group, for whom some support derived from the community, to supplement any possible pre-payment insurance plan, may possibly be needed, are the ones for whom the provision of efficient medical and surgical service offers at this time the greatest difficulties. With further progress in health education those in the upper-level of the moderate-means class may well develop an interest and a desire to participate in voluntary prepayment plans, beginning first with hospitalization alone, and extending ultimately perhaps to full medical, dental and nursing services.

It is greatly to be desired that the trial of

these new methods of providing medical and surgical service to the community should be encouraged in different communities where the coöperation of the hospitals, the medical profession and others interested in the maintenance of the public health can be secured. Certain general principles which should be observed in the organization and operation of these plans have already been approved by the College. The hospital department of the College provides a ready means of securing accurate information in regard to these plans and their operation which should continue to be utilized to accumulate facts on which future judgment may be based.

While the advantages and disadvantages of the different plans for health insurance are under investigation in this laboratory of experience, a number of other steps are immediately open to us which should be of material help in providing more efficient service.

(1) The value of the code of ethics of the medical profession in the protection of the interests of the whole population must be more widely appreciated by the public.

(2) The medical and surgical care of the indigent sick must be recognized everywhere as an obligation of the community.

(3) The segregation of hospital wards for patients of moderate means, who can and should pay minimum hospital expenses and reduced fees, should be more widely practiced.

(4) Abuses of hospital charity by those who can afford to pay must be prevented.

(5) The expansion of the activities of public health departments into the clinical field should be restricted to demonstration clinics for educational purposes; and to such other activities as can be made available to the community only by the use of public funds.

(6) The education of the public in regard to health matters and the postgraduate instruction of physicians should be more widely developed, and finally

(7) The quality of service supplied to the community should be recognized both by the public and by the medical profession as the first and most important consideration in every plan for providing more efficient surgical service and making it available to all classes of the population.

SPECIAL ARTICLE ON THE GRENFELL MISSION

INTRODUCTION

Dr. Light and a friend, who served as radio operator, left New Haven on August 20, 1934 for a projected trip around the world by airplane. They traveled in a small single-engine plane fitted with pontoons. The first part of the trip has recently been completed. The flight across the Atlantic followed the Lindbergh route through Labrador, Greenland, Iceland and the Faroe Islands, the Orkney Islands, and Edinburgh. From Edinburgh Dr. Light flew to Harwich, England, then to Amsterdam, Stockholm, and after a few landings in various European cities, including Geneva, he started on his trip through Rome, Athens, Aleppo, Bagdad and the Far East. The first installment of his medical reminiscences was received from Nyon, Switzerland, where he was staying, on Lake Geneva, with Dr. Arnold C. Klebs, and contains the record of his flight from August 22 to August 27. In an amusing letter he advises others who wish to fly to Labrador to go there somewhat earlier than the end of August, for by that time it is very cold.

He anticipates his next article by writing: "Greenland will interest you more than Labrador. It was an eye-opener to me, as it is practically 'closed country' to tourists and very few reports get out. Also I had a forced landing and had to spend the night with a small group of Eskimos, which was worth more than routine visits to a dozen hospitals. I think it will be better to describe it from the standpoint of the Eskimos rather than from that of the Danish governors, for it is still Eskimo land." The *New England Journal of Medicine* expects to publish the next installment of this interesting and unusual series of experiences shortly.—Ed.

THE GRENFELL MISSION AT CARTWRIGHT, LABRADOR

BY RICHARD U. LIGHT, M.D.

On the third day of the flight we crossed the Strait of Belle Isle and proceeded northward along the Labrador coast. The country was rocky and barren as far inland as we could see, and was full of raintraps. Habitations were frequently seen along the coast and for a hundred miles we were rarely out of sight of a fishing schooner. The thrill of finding the first iceberg came early, just across from Belle Isle, but after that ice appeared only at infrequent intervals. The trip was without particular incident, although at American Tickle the sky began to darken ahead, and we asked VOK (Cartwright Radio Station) for his weather. He assured us that it was still good at our destination. We landed in Sandwich Bay (Cartwright) at 4:10 local time, and tied up to the Hudson Bay Company's dock.

Five days were spent there before leaving for Greenland, and the visit gave excellent opportunities for observing the work of the Grenfell Mission. It is thought that notes of this work may be of interest to readers of the *Journal* because New England people have supported the endeavor so generously, both with financial contributions and through the services of the many men and women who have gone north for a summer or for an entire year in order to render aid to the inhabitants of the outlying districts. The medical work at Cartwright is of particular significance this year, because it is being carried on in spite of the losses of equipment occasioned by a disastrous fire early in the summer,

and the difficulties of the undertaking have been greatly increased.

The town of Cartwright lies 120 miles north of the Strait of Belle Isle. It is inhabited by Newfoundlanders and Indians, and the total number of people in the region of the town and the outlying islands is between two and three hundred. During the fishing season there are also many schooners in the vicinity, so that the summer population is somewhat greater. Since the village itself contains only a small proportion of the people, the Grenfell doctor must carry on his practice over a radius of action thirty miles or more in extent. There are no roads; in the summer the only means of travel is by open boat, in the winter, by dog team.

The hospital staff consists of a doctor, a graduate nurse and her assistant, and three or four volunteers from colleges and medical schools who have been designated by the title of "wops". Occasionally the doctor remains at Cartwright through the winter, but more frequently he goes south on the last boat and the nurse must take charge alone. During this season Dr. Harrison Kennard has taken the post, in a free period preceding his term as surgical resident at the Boston City Hospital.

It has often been observed that medical missionaries among primitive and frontier people cannot rest content with technical accomplishments in medical treatment alone, but must become guardians of the public health in broad ways. Thus in Labrador it has frequently fallen to the Grenfell groups to provide for the education of the children, since families are so widely scattered that few are within reach of any type of school. So it has become the practice to send out dog teams early in the winter to make a round of visits to the trappers' homes, and to bring their children back to the central boarding school where they are fed, clothed and educated until returned to their parents in the spring.

To this end a large building has been erected, on a hill overlooking the harbor. A supply of fine water was gained by damming a stream a mile or two above the settlement, from which it was led through a buried pipeline to the mission;—this was in fact the first healthful water supply in the community. The building was then equipped to care for 60 people: the staff, a large group of children, and the hospital patients. It had succeeded splendidly in its purpose, and the fire which occurred in June of this year was a disaster of major importance. The entire structure was demolished, and it lies now a heap of ruins, with only the foundations and the chimney to invite the reconstruction which must soon follow.

After the fire the staff retired to the several small buildings standing nearby, and converted these into bunkhouses, storage rooms and the like. One was taken over for a hospital, and now provides two "wards" to accommodate six beds. The valuable equipment of the operating room had been destroyed, but with the ingenuity which flourishes on the frontier these industrious workers have reconstructed many portions of the lost apparatus. Surgical operations are carried out on a table built up from the wooden boxes which brought tins of gasoline to Balbo's fleet last year! These useful crates also form their shelves, desks and chairs. Instruments and dry goods are sterilized over a wood fire in the corner stove, and this same heater, with its doors closed tightly, warms the room while the patient is under ether anesthesia. Even such handicaps have not prevented good surgery and three patients, after convalescing from major surgical procedures, had returned to their homes during the week before our visit to the Mission.

The hospital's beds did not remain idle long, however, for the arrival of the mailboat "Kyle" on August 22 brought five patients from the coastal settlements. Three of these were children for tonsillectomy, one being a youngster who was deaf because adenoids blocked the Eustachian tubes; one was a ship's master with a carbuncle of the neck; the other was a Newfoundland fisherman suffering from cellulitis of the arm. Hand and arm infections are common among the fishing people because of the peculiar circumstances under which they labor. They fish for cod steadily through the summer months, with the hands constantly immersed in cod slime. Protection to the body and arms is gained by wearing heavy oilskins, but these chafe at the wrists and it is all too frequent that a line of furuncles, which are known as "water-pups," encircles both wrists. Often the infection spreads through the lymph channels and involves the entire arm, as in this case. It is considered by the fishermen that wearing brass chains about the wrists for a few weeks before the fishing season opens somehow immunizes them against these infections, and many of them follow the practice.

One of the sad results of the mission fire was the death of a patient, a girl of seventeen who was in the recovery stages of scarlet fever. Her remains were discovered some weeks later, and the funeral arranged. The Grenfell doctor was requested to serve as pallbearer; he marched at the head of the procession, bearing in his hands a small box containing the few bones recovered. Behind him in slow procession filed Cartwright's seventy-two inhabitants; all, except one man who remained to toll the bell over the silent marchers, until the ceremony was ended. In the graveyard a Bible was produced, and old Judge Murphy read several passages while the box was lowered into its resting place. It rained, and the grave was already filled with water before the burial was completed.

It rains often in Labrador, a light stinging rain driven hard by the wind. It does not fall in large quantities, however, and the radio operators find difficulty in collecting sufficient water with which to supply their batteries. The frequency of the storms, and the mean way in which the water penetrates the seams of one's clothing, form a considerable hard-

ship for the doctor who must make the rounds of his patients in an unprotected open boat. Moreover, sickness is no more limited to daylight hours in the country than in the city, and many of Kennard's most thrilling experiences have been encountered at night while navigating his one-cylinder boat through the little-known waters of the outer islands, striving to reach a patient whose courier had arrived at the Mission only after sundown. Getting lost, drifting with a balky motor, even shipwreck, have been his lot. His efforts have been well received, however, and the natives are devoted to him, coöperating unusually well in following the prescribed medical treatment.

The charts of the coastlines are incomplete and give poor indication of the "lay" of the land, so that the doctor welcomed the opportunity to fly over his dominion for a first-hand reconnaissance. We went first around the headwaters of the bay, where the people move into winter quarters during the trapping and hunting season. The houses were deserted for the most part, although a few inhabitants had remained behind to tend the vegetable gardens, a practice which Grenfell and his coworkers have introduced. Twice we saw groups of "husky" dogs marooned on small islands, and learned that the natives put them out during the summer in order to protect the children. It is not unknown for dogs to attack and kill helpless infants. A load of fish is brought to these animals once or twice a week, and in this way they seem to survive until the snow returns, when they are taken ashore and broken to harness again.

At the head of the bay, rain was dripping from low clouds, and this shut off the route inland, so that after circling the shore we turned eastward to cross over some of the channels which led among the numerous islands between Cartwright and Gready Islands, the most easterly land in this region. Several schooners were sighted and we passed a whaling factory which seemed busily engaged, with black smoke pouring from the stovepipe chimney. We came finally to Cape North and at Dr. Kennard's suggestion landed there to visit a patient whom he had seen a month earlier. The ship was anchored in deep water and we went ashore in a rowboat which was put out for us.

One's first experience in a codfishing boat is not apt to be pleasant, nor is it reassuring to leave it by way of a slippery ladder to a trestle on which are dressed annually some tens of thousands of the fish, whose ugly skeletons are seen lying on the beach beneath. If you can picture this, you may perhaps appreciate the misgivings with which I followed the others along the muddy path to an unpainted two-story house in which our patient was said to be found.

Once inside, the whole grim atmosphere seemed to fall away. These people were not living in hopeless filth as I had hastily imagined. The room was warm and clean, and was tinged with the odor of a dozen loaves of bread which followed each other at regular intervals into the baking oven. On the floor were bright rugs which had been hooked in this very room. A row of guns stood racked in a corner, but over their muzzles hung a fiddle which "they all played". In the adjoining room, the parlor, there were a sewing machine and a foot organ.

The patient was a girl of eighteen, suffering from rapidly advancing pulmonary tuberculosis. She was discouragingly sick, in spite of the excellent care which the mother had given since the doctor's last visit. Her instructions, written in one-two-three form, were still pinned to the wall beside the bed: fresh air, good food, complete rest, etc., a difficult régime in this land. She might have fresh air during the summer but in winter economic necessity would force them to nail the windows shut; the diet could hardly be adequate in a community which subsisted mainly on codfish, and it would be much worse in midwinter when the butter would probably run short; complete rest for the patient would depend on the energy and stamina of the already busy mother.

The doctor did what he could, and we started for home. The weather was shutting down and compelled us to dodge back and forth in the rain to avoid the islands. Frequently we flew close to a fisherman's home, and it interested me in passing to reflect on the splendid assistance that has been given to these people by Sir Wilfred Grenfell's organization. Their livelihood is not easily gained, and injuries and diseases are frequently encountered. Without the sound hospital system which forms the background of the Labrador coast, the hardships of their existence would be immeasurably increased.

MISCELLANY

THE REINSTATEMENT OF DR. ALBEE

The newspapers report the reinstatement of Dr. Fred H. Albee in the Medical Society of the County of New York by reason of a decision by Supreme Court Justice Timothy A. Leary. In the action of the court, the Society is ordered to reinstate Dr. Albee. The main facts in this case were set forth in our issue of August 9, on page 284.

Dr. Albee's defense in an appeal to the Board of Censors of the New York State Society was that he did not authorize the use of his name on certain dining-car menus. The Board of Censors, however, did not regard that as an adequate defense.

It will be of interest to learn of the attitude of the members of this State Society toward a member reinstated through court procedure, as to whether his reinstatement carries with it the reëstablishment of cordial personal relations.

Even though a court decision appears to be binding on a medical society in the standing of its members with respect to its code of ethics, one may wonder how far constitutions and by-laws are effective in controlling the behavior of members.

We are not entering into a discussion of whether

Dr. Albee did or did not observe the rules and regulations adopted by the medical society, but it is evident that a new aspect of the powers of a medical society are presented by the court.

Dr. Albee may very likely be pleased to have the stigma of discipline removed and that may be all that he was after. The continued story may be of interest.

COMPARISON OF DISEASE INCIDENCE IN CONNECTICUT WITH 1933 AND SEVEN YEAR AVERAGE

MONTH ENDING OCTOBER 13, 1934

	1934					1933			
Diseases	Week ending Sept. 22	Week ending Sept. 29	Week ending Oct. 6	Week ending Oct. 13	Average cases reported for week corresponding to Oct. 13 for past seven years	Week ending Sept. 23	Week ending Sept. 30	Week ending Oct. 7	Week ending Oct. 14
Cerebrospinal Men.	—	1	—	1	—	1	—	—	—
Chicken Pox	14	30	43	22	32	9	15	35	24
Conjunctivitis Inf.	1	—	—	—	—	—	—	—	—
Diphtheria	3	—	—	2	16	1	4	—	3
Dysentery Amebic	1	—	1	—	—	—	—	3	—
Dysentery Bacillary	2	5	2	1	—	—	—	—	1
Encephalitis Epid.	—	—	—	1	—	—	1	1	—
German Measles	—	5	3	1	2	—	—	—	—
Influenza	3	1	3	1	3	1	1	—	2
Malaria	—	—	—	—	—	1	1	—	—
Measles	9	17	17	18	11	4	1	5	4
Mumps	4	9	15	9	12	8	18	36	27
Paratyphoid Fever	—	1	—	—	—	—	—	—	—
Pneumonia (Broncho)	8	14	12	9	15	9	12	13	15
Pneumonia (Lobar)	10	7	10	8	18	3	6	13	22
Poliomyelitis	—	1	—	—	11	10	7	5	2
Scarlet Fever	8	9	11	16	23	15	26	26	39
Septic Sore Throat	—	1	1	—	2	2	4	1	1
Tetanus	—	1	1	—	—	—	—	—	2
Trichinosis	—	—	—	1	—	—	—	—	—
Tuberculosis (Pul.)	27	25	34	14	24	20	26	19	15
Tuberculosis (O. F.)	—	2	1	2	—	2	2	3	1
Typhoid Fever	3	1	—	—	5	4	1	2	2
Undulant Fever	—	3	3	—	—	1	—	—	2
Whooping Cough	34	32	53	34	29	19	39	14	23
Gonorrhea	62	43	30	68	31	30	37	30	15
Syphilis	36	48	45	44	40	34	48	44	28

Remarks: No cases of Asiatic cholera, glanders, plague or yellow fever during the past seven years.

THE REMOVAL OF THE DR. SIMS STATUE

The bronze statue of Dr. James Marion Sims, founder of the Woman's Hospital in 1855, has been moved from its former location to a place in Central Park facing Fifth Avenue, New York City.

The statue was unveiled by Dr. Alice Gregory, a granddaughter of Dr. Sims.

Dr. Sachs, President of the New York Academy of Medicine, said that "on behalf of the New York Academy of Medicine and the medical profession of the city and the country, let me express the great satisfaction that we feel that the memorial of Dr. J. Marion Sims has been placed in full view of the building of the Academy and of the Museum of the City of New York."

Later in the address Dr. Sachs said, "No one did more than did Dr. Sims in the second half of the last century to give American surgery its present authoritative position among the nations of the world. While we shall always be ready to do honor to the name of Dr. J. Marion Sims as physician and gynecologist, he deserves to be especially lauded as one of New York's eminent citizens."

Other appropriate addresses were delivered by Dr. George Gray Ward representing the Woman's Hospital, Dr. John H. Finley and Mr. W. Earle Andrews.

RECENT APPOINTMENTS

Governor Ely has made the following designated appointments:

Dr. Edward B. Gilmore of Brockton, Associate Medical Examiner of the First Plymouth District; Dr. Charles A. DeLand of Warren, Medical Examiner of the Ninth Worcester District; Dr. Frederick E. Jones of Quincy, Medical Examiner of the Third Norfolk District; Dr. Harry L. Craft of Ashfield, Associate Medical Examiner of the Seventh Middlesex District; and Dr. Albert C. Leach of Orange, Associate of the Northern Franklin County District.

According to a Boston newspaper all but the appointment of Dr. Gilmore were confirmed by the Council under suspension of the rules.

Miss Elizabeth Dumaine of Groton was named as Trustee of the Massachusetts General Hospital. Miss Dumaine is a graduate of the Massachusetts General Hospital Training School for Nurses, and has always been interested in the hospital and school. She takes the place of the late Mrs. Pauline Revere Thayer.

MORTALITY RATES

Telegraphic returns from 86 cities, with a total population of thirty-seven millions for the week ending October 6, indicate a mortality rate of 9.9 as against a rate of 9.8 for the corresponding week of last year. The highest rate (16.7) appears for Memphis, Tenn., and the lowest (5.0) for Yonkers, N. Y. The highest infant mortality rate (11.2) appears for Camden, N. J., and the lowest for Bridgeport, Conn., Cambridge, Mass., Des Moines, Iowa, Lynn, Mass., Schenectady, N. Y., Spokane, Wash., Springfield, Mass., Syracuse, N. Y., Utica, N. Y., and Wilmington, Del., which reported no infant mortality.

The annual rate for 86 cities is 11.4 for the forty weeks of 1934, as against a rate of 10.9 for the corresponding period of the previous year.

SUMMARY OF DEATHS AND DEATH RATES (ANNUAL BASIS) FROM AUTOMOBILE ACCIDENTS PER 100,000 ESTIMATED POPULATION FOR 86 CITIES FOR CORRESPONDING PERIODS OF 1934 AND 1933

	Week ending Oct. 6, 1934	Week ending Oct. 7, 1933	First 40 weeks 1934	First 40 weeks 1933
Total deaths	200	176	6,376	5,862
Death rate	27.9	24.5	22.2	20.4
Deaths due to accidents in city	153	128	4,983	4,598
Death rate	21.3	17.8	17.4	16.0

—*Bureau of the Census.*

CORRESPONDENCE

THE CHARGE OF THE PRESIDENT OF DARTMOUTH COLLEGE

Mr. Editor:

When those who believe in the control of smallpox by medical measures listen to vituperative speeches or receive anonymous and scurrilous letters, it may soothe their wounded feelings to remember that in 1777 a committee appointed to suppress an epidemic in Hanover, N. H., had to meet the charge, presented by the President of Dartmouth College, that they were violating the scriptural Ten Commandments.

Their efforts so irritated old Dr. Wheelock that he appealed to the Governor of New York for permission to remove the College to that state and complained to the Presbytery in the following rather remarkable language: "Eleazar Wheelock, D.D., President of Dartmouth, complains of Capt. David Woodward, Capt. Storrs, Lieutenant Jonathan Freeman, Deacon John Fowler and Bazaleel Woodward, Esq., of the town of Hanover and all bearing the public character and the name of Christians and professing to be subject to the laws of Christ's visible kingdom, for being scandalously guilty of breaches of the 5th, 6th and 8th Commandments of the moral law in or about the 10th, 11th, and 12th days of June 1777, that is to say.

"Whereas much has been said and done to bring them to a conviction, repentance and confession of their error as the Gospel requests, to supposedly no good purpose, I therefore tell you that further steps may be made and endeavors used as the rules of the Gospel direct for their good and the glory of God.

"Violation of the 6th Commandment by coming in and intermeddling in a sovereign and arbitrary manner, of the 5th by disrespect and contempt shown to the President's rightful authority, of the 8th by forcibly taking possession of a house and the rooms in it for these purposes, and in bringing this complaint I solemnly declare before the omniscient searcher of hearts that I am not influenced by tyrannous prejudice or disaffection toward them, that I do it with a single regard to their good and furthering the cause and interest of the Redeemer's Kingdom."

The Commandments referred to are, of course,

> Thou shalt not kill.
> Thou shalt not steal.
> Honor thy father and thy mother.
> (Bazaleel Woodward was Wheelock's son-in-law.)

It may be of interest to note that the State of New York would not accept the removal of Dartmouth College, that the Presbytery paid no attention to Dr. Wheelock's letter, and strangely enough, that Dr. Wheelock himself had been inoculated with smallpox virus two years before.

SAMUEL B. WOODWARD, M.D.
58 Pearl Street, Worcester, Mass.

RECENT DEATHS

BELLOWS — Howard Perry Bellows, M.D., of 7 Arlington Street, Cambridge, Massachusetts, with an office at 220 Clarendon Street, Boston, died at his home, October 16, 1934. He was born at Fall River in 1852, the son of Albert Fitch Bellows and Candace J. (Brown) Bellows. His ancestry traces back to John Bellows who settled in Marlboro in 1635, and on his mother's side to Michael Pierce of Hingham and Scituate, and Elder Brewster of the Plymouth colony.

Dr. Bellows studied at the College of the City of New York and Cornell, receiving the degrees of B.S., and M.S. He received his M.D. degree from Boston University School of Medicine in 1877, afterward studying in Leipsic, Vienna and Halle.

Before opening his Boston office, he practiced in Auburndale. His specialty was Otology.

He was an honorary president of the American Institute of Homeopathy, a Fellow of the American College of Surgeons, the Massachusetts Homeopathic Society, Honorary Vice-President of the British Homeopathic Medical Association, and Vice-President of the Seventh International Homeopathic Congress.

He is survived by his widow, Mrs. Mary A. (Clarke) Bellows; a daughter, Mrs. Louis Harding of Ridgewood, New Jersey, and two grandsons, Howard Theodore Harding and Albert Bellows Harding.

HODGES—Almon Danforth Hodges, M.D., of the Warren, Roxbury, Mass., died October 17, 1934. He was a native of Roxbury and was born in 1865. His premedical education was at the Roxbury Latin School and Harvard College, from the latter of which he graduated in 1889. His M.D. degree was received from the Harvard Medical School in 1893.

Dr. Hodges subsequently studied in Berlin and Vienna and maintained a practice for twenty-five years in Roxbury.

He joined the Massachusetts Medical Society in 1894 and was a Fellow of the American Medical Association. His memberships included the Boylston Medical Society, Roxbury Society for Medical Improvement and the Harvard Club.

He was a vestryman of the St. James Episcopal Church in Roxbury. Dr. Hodges was unmarried.

NOTICES

The Massachusetts Medical Society

Second Annual Postgraduate Medical Extension Course

The following sessions have been arranged by the Committee:

Barnstable

Sunday, October 28, at 4:00 P.M., at the Cape Cod Hospital, Hyannis. Subject: Pediatrics (Second Session). John I. B. Vail, M.D., Chairman.

Bristol South (Fall River Section)

Monday, October 29, at 4:00 P.M., at the Stevens Clinic of the Union Hospital, Prospect Street, Fall River. Subject: Laboratory Procedures Useful in Office Practice and Home Treatment, and Medical Economics. Eugene A. McCarthy, M.D., Sub-Chairman.

Essex North

Tuesday, October 30, at 4:00 P.M., at the Hotel Bartlett, 95 Main Street, Haverhill. Subject: Surgery (Second Session). Francis W. Anthony, M.D., Chairman.

Essex South

Tuesday, October 30, at 4:00 P.M., at the Salem Hospital, Salem. Subject: Surgery (Second Session). Walter G. Phippen, M.D., Chairman.

Hampden

Thursday, November 1, at 4:00 P.M., at the Academy of Medicine, Professional Building, 20 Maple Street, Springfield, and at 8:00 P.M., at the Holyoke City Hospital, Holyoke. Subject: Cardiovascular Disease (Second Session). George L. Schadt, M.D., Chairman.

Hampshire

Wednesday, November 7, at 4:15 P.M., in the Nurses' Home of the Cooley Dickinson Hospital, Northampton. Subject: Pediatrics (Second Session). Robert B. Brigham, M.D., Chairman.

Middlesex East

Wednesday, October 31, at 4:00 P.M., at the Melrose Hospital, Melrose. Subject: Obstetrics and Gynecology (Second Session). Joseph H. Fay, M.D., Chairman.

Middlesex South

Monday, October 29, at 4:30 P.M., at the Cambridge Hospital, Mt. Auburn Street, Cambridge. Subject: Endocrinology (Second Session). Charles E. Mongan, M.D., Chairman.

Norfolk South

Monday, October 29, at 8:30 P.M., at the Quincy City Hospital, Quincy. Subject: Cardiovascular Disease (Second Session). David L. Belding, M.D., Chairman.

Plymouth

Tuesday, October 30, at 4:00 P.M., at the Brockton Hospital, Brockton. Subject: Cardiovascular Disease (Third Session). Walter H. Pulsifer, M.D., Chairman.

Additional notices will appear in subsequent issues of the *Journal*.

CLINIC AT THE PETER BENT BRIGHAM HOSPITAL

At 3:30 P. M. on Thursday, November 1, in the Amphitheatre of the Peter Bent Brigham Hospital Dr. Henry A. Christian, Physician-in-Chief, Hersey Professor of the Theory and Practice of Physic in the Harvard Medical School, will give a medical clinic. To it are cordially invited practitioners and medical students. These clinics will be repeated on Thursdays until May.

On Saturdays in the wards of the Peter Bent Brigham Hospital, from 10 to 12, staff rounds will be conducted by Dr. Christian. These are open to all physicians.

NEW ENGLAND HEART ASSOCIATION

CORRECTION

The New England Heart Association will hold its first meeting October 29, at *8:15 P.M.* (instead of 8:30 as previously announced), in the Ether Dome at the Massachusetts General Hospital. The meeting will be conducted by Dr. Paul D. White and Dr. Howard B. Sprague. All members of the New England Heart Association and physicians interested are invited to attend.

JAMES M. FAULKNER, M.D., *Secretary.*
264 Beacon Street, Boston.

BOSTON MEDICAL LIBRARY

The Library will be open Monday and Wednesday evenings until ten o'clock during the remaining months of 1934.

The new periodical room is now open to members.

REPORT AND NOTICES OF MEETINGS

ESSEX NORTH DISTRICT MEDICAL SOCIETY

The ninety-third quarterly meeting of the Essex North District Medical Society was held at Raymond's Sunnyridge Farm in Amesbury, at 12:30 P.M., October 17, 1934.

Dr. William MacKnight of the Fall River Board of Health was the principal speaker, and among the distinguished guests were Dr. William H. Robey, President of the Massachusetts Medical Society; Dr. Thomas J. O'Brien, Executive Assistant to the President; Dr. Ernest Morris, Commissioner of Public Health and Hospitals in Fall River; Alderman James Costello, Commissioner of Welfare in Haverhill; William W. Savage, Hospital Administrator of Haverhill, and Albert Slack, Town Almoner of Methuen.

After a short business meeting, Dr. Parr, presiding, introduced Dr. Robey who discussed the affairs of the State Society, and the unsatisfactory position of the physician, as contributing too great a share to the public welfare without compensation. He discussed the work of the Public Relations Committee, inviting the coöperation of all the Fellows of the Society, and particularly the district public relations committees, in the conduct of study on the adequacy of medical service in Massachusetts to-day. It is important that we should know as definitely as possible what are the abuses so far as uncompensated hospital service, and inadequately compensated service to the various low income groups in the state are concerned.

Dr. MacKnight was then introduced, and he presented a spirited discussion of the medical situation in Fall River as it exists under the plan D government. He opened his remarks by the statement that the citizens and physicians in Fall River needed no sympathy, because it is a better place than ever in which to live. When the Commission government was first established by the State, a survey of medical facilities was made by Dr. Haven Emerson, a nationally prominent public health authority; Dr. Washburn, the then director of the Massachusetts General Hospital; and Dr. Richardson, of Providence, Rhode Island. Hospital conditions were found to be very unsatisfactory, particularly as concerned maternity, contagious and tuberculosis cases. The General Hospital is now administered by the Board of Health, and does not admit any patients, except those previously investigated by the Welfare Department, and real emergencies. Maternity cases are attended in the homes by the doctors most interested in that specialty, with a fee of $20.00 for the delivery, $5.00 for a nurse out of work, and $5.00 for a district nurse making the after calls. The average cost of maternity cases in the hospital is $45.00 to $48.00, and only those cases with complications, or first babies, are now admitted to the hospital. This system has saved the city a large amount of money, has been more satisfactory to the patients, and has given some degree of compensation to the attending physician.

The pernicious system of city physicians came in for condemnation. The city physician in Fall River receives $1600.00 salary, and averages about 7300 calls. Dr. MacKnight called attention to the fact that a good physician can not afford to practice medicine adequately with this compensation. It was brought out that while this system yields the city physician about 50c per visit, the city physicians in Haverhill are now doing the work for about one-fourth of this sum per visit.

The General Hospital service is arranged so that there is a sliding scale paid by the patient for this service, thereby maintaining self-respect, and lessening the abuse of free hospital care. This system was instituted over the resistance of those politicians who had for a long time taken advantage of the public purse. The staff at the hospital was rearranged so as to be undisturbed by political influence.

Starting with a budget of $487,000.00, it has been reduced to $215,000.00, with thirty-eight per cent more service rendered. Per capita calls at the Gen-

eral Hospital have been reduced from $5.85 to $2.60 per day. The Tuberculosis Hospital costs, which were $4.00, are now $2.06. At the Contagious Hospital, the present cost is $3.04, as compared with an original cost of $6.00 per day. Private patients are admitted for $5.00 a day. The dietitian is saving $3500.00 a month on food. No canned food is served, except tomatoes. Fresh vegetables are bought at the market daily. Ice formerly cost the city $2,000.00 a year. With an expenditure of $2,000.00 for refrigeration there is now an expense of only about $5.00 a year. The chronic sick are taken care of in their homes. Dr. MacKnight stressed the lack of proper concern, on the part of the attending physician in the hospital, about hospital administration costs. He said that it was very difficult to have the physician discharge cases at the earliest possible time, consistent with good care. The large number of patients staying in the hospital two or three days longer than necessary is responsible in the aggregate for a large unnecessary hospital cost.

The E. R. A. medical work has been blacklisted by the physicians of Fall River because they feel that it is unjust for the Government to provide compensation for everybody except physicians, and the internes of the hospital, who are paid by the city, look after these cases. The Insurance Companies are not allowed to chisel into the public purse by having their cases admitted to the hospitals, for free service.

Mr. Costello made it clear that in Haverhill, where one hospital takes care of both private and charity cases, the physicians are entitled to some compensation on account of the contributions in caring for the ward patients. It is for this reason that he felt the city was doing only a part of what was just, by allowing private cases to the amount of twenty-five per cent to be cared for in the city hospital. He made it clear that he felt the physicians of Haverhill were doing more than their share of public service. Dr. MacKnight said the aim in Fall River, as well as other cities, including New York, is to compensate the attending physician for the care of charity cases in public hospitals.

When asked how it was possible to initiate all these desired changes, he explained that of course, originally, the debauch of government in Fall River engendered such local distrust that outsiders who could presumably be trusted were brought in, and they used the broom. He said that the Fall River Herald News had rendered incalculable assistance in the accomplishment of this work.

After a rising vote of thanks to the speaker, the meeting was adjourned.

E. S. Bagnall, M.D., *Secretary.*

PHYSICIANS' ART SOCIETY

Annual Meeting

Monday, October 29, 1934, at 8:30 P.M., Boston Medical Library, 8 Fenway.

Address by well-known architect, Mr. C. Howard Walker.

James F. Ballard, *Secretary.*

Members are invited to bring in friends interested in any form of art.

WORCESTER DISTRICT MEDICAL SOCIETY

The November meeting of the Worcester District Medical Society will be held in the auditorium at the Grafton State Hospital, on Wednesday evening, November 14, 1934. A buffet supper will be served the members of the Society at 6:30 P.M., complimentary by the State Hospital.

The business and scientific program will open at 7:30 P.M. The scientific paper will be presented by Dr. Walter Bauer of the Massachusetts General Hospital, Boston, and his subject will be "The Differential Diagnosis of Rheumatoid Arthritis." The second half of the evening's program will be less scientific than the first half and will consist of a non-scientific talking moving picture, presented by the Grafton State Hospital.

Erwin C. Miller, M.D., *Secretary.*

THE TRUDEAU SOCIETY

A meeting of the Trudeau Society will be held in the Auditorium of the Beth Israel Hospital at 8:00 P.M. Tuesday, October 30. Dr. John Alexander, Professor of Surgery, University of Michigan, will speak on "The Indications for Surgical Collapse in Pulmonary Tuberculosis."

Moses J. Stone, M.D., *Secretary.*

FAULKNER HOSPITAL CLINICAL MEETING

The next meeting will be held at the Faulkner Hospital on Thursday afternoon, November 1, at 5:00 P.M. In addition to the usual clinical pathological conference there will be a talk by Dr. Robert C. Cochrane on "Lessons Learned from More than One Hundred Thyroidectomies at the Hospital." All physicians are invited.

THE NORFOLK DISTRICT MEDICAL SOCIETY

A stated meeting of the Society will be held in the Children's Hospital, 300 Longwood Avenue, Boston, Tuesday evening, October 30, 1934, at 8:00 P.M. Telephone Aspinwall 5930.

Communications: 8:00 P.M.

Papers by the Staff of the Hospital.

Business:

Following the communications, incidental business and reports of committees will be taken up.

Collation.

Frank S. Cruickshank, M.D., *Secretary.*

ACADEMY OF PHYSICAL MEDICINE

The twelfth annual meeting of the Academy of Physical Medicine will be held October 30-31 at the Hotel Pennsylvania, New York.

Program

Tuesday Morning, October 30, 10 o'clock

Business session. Reports of Secretary-Treasurer, Board of Directors, and Standing Committees.

Election of Members.
Report of Audit Committee.
New Business.
Election of Nominating Committee.

Tuesday Noon, 12 o'clock

In the scientific session, addresses will be given by William L. Clark, M.D., Philadelphia, President of the Academy of Physical Medicine, and by Groesbeck F. Walsh, M.D., Fairfield, Ala.

On Tuesday afternoon, beginning at 2 o'clock, there will be addresses by Frank H. Krusen, M.D., Philadelphia; George M. MacKee, M.D., New York City; William D. McFee, M.D., Boston; William L. Clark, M.D., Philadelphia; Grant E. Ward, M.D., Baltimore; Lester R. Whitaker, M.D., Boston; Benedict F. Boland, M.D., Boston; Franklin P. Lowry, M.D., Newton, Mass., and Harold D. Corbusier, M.D., Plainfield, New Jersey.

On Tuesday evening a round table dinner is scheduled with William L. Clark, M.D., as toastmaster.

On Wednesday morning, October 31, beginning at 10 o'clock, there will be addresses by William H. Schmidt, M.D., Philadelphia; William Bierman, M.D., New York City; George L. Schneider, M.D., Williamsport, Pa.; Arthur H. Ring, M.D., Arlington, Mass.; Byron S. Price, M.D., New York City; Professor I. Gunzburg, M.D., Antwerp, Belgium.

The business session will be held at 1 o'clock, and will precede the Academy Fellowship Luncheon. Speaker: R. Tait McKenzie, M.D., Philadelphia. A smoker will follow.

All members of the medical profession are cordially invited to attend the meetings.

SOCIETY MEETINGS, CONGRESSES AND CONFERENCES

October 25—Peter Bent Brigham Hospital and Children's Hospital Joint Surgical and Orthopedic Clinic. See page 698, issue of October 11.

October 25—The Massachusetts Medical Benevolent Society will hold its annual meeting at the Boston Medical Library at 5:15 o'clock.

October 26—New England Roentgen Ray Society will meet at the Boston Medical Library, Boston, Mass., Friday night, October 26, 1934, at 8:15 P.M. Scientific Session: "Tumors of Bone," Channing C. Simmons, M.D., Boston, Mass. Dinner at the Harvard Club.

T. R. HEALY, M.D., President.
370 Marlborough Street, Boston, Mass.

October 29—Physicians' Art Society. See page 798.

October 29—New England Heart Association. See page 797.

October 30—The Trudeau Society. See page 798.

October 30-31—Academy of Physical Medicine. See page 798.

October 31 - November 2—Massachusetts State Nurses' Association, Hotel Statler, Boston. For information write Miss Helene G. Lee, R.N., 420 Boylston Street, Boston.

November 1—Massachusetts Psychiatric Society. The annual meeting and dinner will be held on November 1 at 6:30 P.M. at the Hotel Statler, Boston. After the business meeting and election of officers, members will be addressed by Mr. Arthur Fiedler of the Boston Symphony Orchestra.

OSCAR J. RAEDER, M.D., Secretary.

November 1—Clinic at the Peter Bent Brigham Hospital. See page 797.

November 1—Faulkner Hospital Clinical Meeting. See page 798.

November 5-9—Inter-State Postgraduate Medical Association of North America. See page 649, issue of October 4, and page 726, issue of October 18.

MASSACHUSETTS DIETETIC ASSOCIATION

November 7—Wednesday, 8 P.M. Forsyth Dental Infirmary for Children, 140 Fenway, Boston, "The Arrest and Control of Dental Caries," Dr. C. L. Drain, College of Dentistry, State University of Iowa.

November 20—Tuesday, 2 P.M. Field Trip: Visit Kitchens of the Hotel Statler.

December 11—Tuesday, 8 P.M. "Food Allergy," Dr. Frank N. Allan, Department of Medicine, Lahey Clinic.

January 8—Tuesday, 8 P.M. "Careers and Natural Abilities," Professor Johnson O'Connor, Human Engineering Laboratory, Stevens Institute of Technology, Hoboken, N. J.

February 12—Tuesday, 8 P.M. "Diabetic Children," Dr. Priscilla White, Joslin Diabetic Unit.

March 12—Tuesday, 8 P.M. "The Effect of Diet on Anemia," Dr. Lewis Diamond, Instructor in Medicine, Harvard University Medical School, Associate Physician, Children's Hospital.

March 19—Tuesday, 2 P.M. Field Trip: Visit Storehouse, First National Stores.

April 9—Tuesday, 8 P.M. "Small Hospital Problems," Miss Margaret Copeland, Superintendent, Free Hospital for Women.

November 9—William Harvey Society.

December 3-7—The Radiological Society of North America. See notice on page 562, issue of September 20.

December 6-8—Annual Conference of the National Society for the Prevention of Blindness. See page 736, issue of October 18.

April 29 - May 3, 1935—The American College of Physicians will meet in Philadelphia. For information address Mr. E. R. Loveland, Executive Secretary, 133-135 South 36th Street, Philadelphia, Pa.

June, 1935—Medical Library Association will meet in Rochester, N. Y. For details address the Secretary: Miss Frances N. A. Whitman, Librarian, Harvard University Schools of Medicine and Public Health, Boston, Mass.

DISTRICT MEDICAL SOCIETIES

ESSEX NORTH DISTRICT MEDICAL SOCIETY

The Semi-Annual Meeting will be held in January and the Annual Meeting in May, time, place and subject to be announced.

E. S. BAGNALL, M.D., Secretary.

FRANKLIN DISTRICT MEDICAL SOCIETY

Meetings will be held on the second Tuesday of November, January, March, and May at the Weldon Hotel, Greenfield, Mass.

CHARLES MOLINE, M.D., Secretary.
Sunderland.

MIDDLESEX EAST DISTRICT MEDICAL SOCIETY

November 14—Reading.

January 9, 1935—Melrose.

March 13, 1935—Wakefield.

May 8, 1935—Winchester.

K. L. MACLACHLAN, M.D., Secretary.
1 Bellevue Street, Melrose.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY

October 31—Regular meeting to be held at the Hotel Continental, Cambridge.

ALEXANDER A. LEVI, M.D., Secretary.

NORFOLK DISTRICT MEDICAL SOCIETY

October 30—See page 798.

PLYMOUTH DISTRICT MEDICAL SOCIETY

October 25—This meeting will be held at the Moore Hospital, 167 Newbury Street, Brockton, Mass. Program: "Treatment of Barbiturate Poisoning." Report of a case, Dr. Alfred L. Duncombe, Moore Hospital, Brockton, Mass. "Gastro-duodenal Hemorrhages from the Roentgenologist's Standpoint," Dr. Max Ritvo, Boston, Mass.; "Gastro-duodenal Hemorrhages from the Surgeon's Standpoint," Dr. G. A. Moore, Brockton, Mass.

G. A. MOORE, M.D., Secretary.

167 Newbury Street, Brockton.

SUFFOLK DISTRICT MEDICAL SOCIETY

November 1—The Censors of the Suffolk District Medical Society will meet for the examination of candidates at the Medical Library, 8 Fenway, Thursday, November 1, 1934, at 4:00 o'clock.

November 28—Meeting at the Boston Medical Library. Speakers: Dr. Frederick T. Lord, Dr. Edward D. Churchill, Dr. Roderick Heffron. Subject: Symposium on Pneumonia.

January 23, 1935—General Meeting in association with the Boston Medical Library. Speaker and subject to be announced later.

March 27, 1935—Clinical Meeting at the Boston Lying-In Hospital.

April 24, 1935—Clinical Meeting at the Children's Hospital.

The medical profession is cordially invited to attend all of these meetings.

ROBERT L. DeNORMANDIE, M.D., President.
GEORGE F. REYNOLDS, M.D., Secretary.
HENRY T. HUTCHINS, M.D., Boston Medical Library.

WORCESTER DISTRICT MEDICAL SOCIETY

November 14—See page 798.

December 12—Wednesday evening. St. Vincent Hospital, Worcester, Mass. 6:30 P.M.: Dinner. 7:30 P.M.: Scientific program and business session. Announcement of subjects and speakers to be presented at a later date. Dinner complimentary by the Hospital.

January 9, 1935—Wednesday evening. Worcester City Hospital, Worcester, Mass. 6:30 P.M.: Buffet supper. 7:30 P.M.: Scientific program and business session. Announcement of subjects and speakers to be presented at a later date. Buffet supper complimentary by the Hospital.

February 13, 1935—Wednesday evening. Worcester State Hospital, Worcester, Mass. 6:30 P.M.: Dinner. 7:30 P.M.: Scientific program and business session. Announcement of subjects and speakers to be presented at a later date. Dinner complimentary by the Hospital.

March 13, 1935—Wednesday evening. The Memorial Hospital, Worcester, Mass. 6:30 P.M.: Buffet supper. 7:30 P.M.: Scientific program and business session. Announcement of subjects and speakers to be presented at a later date. Buffet supper complimentary by the Hospital.

April 10, 1935—Wednesday evening. Worcester Hahnemann Hospital, Worcester, Mass. 6:30 P.M.: Dinner. 7:30 P.M.: Scientific program and business session. Announcement of subjects and speakers to be presented at a later date. Dinner complimentary by the Hospital.

May 8, 1935—Wednesday afternoon and evening. Annual Meeting of the Worcester District Medical Society. The time and place of this meeting will be announced later.

ERWIN C. MILLER, M.D., Secretary
27 Elm Street, Worcester.

BOOK REVIEWS

A Text-Book of Pathology. Edited by E. T. Bell. Second Edition. 767 pp. Philadelphia: Lea and Febiger. $8.50.

The second edition of Bell's Text-Book of Pathology presents a very marked enlargement and the inclusion of much valuable material. The discussions are much more complete and a considerable amount of material omitted in the first edition has been included. The text bears numerous evidences of Dr. Bell's exceptionally wide experience in postmortem pathology. A number of points of value to the practicing pathologist, as well as to the student, are included. A strong defense of the practice of biopsy is made and the value of the procedure emphasized.

The illustrations are well chosen and adequately balanced between gross and microscopic. A short section on neuropathology is included, as is a valuable chapter on diseases of the blood by Hal Downey. The increasing interest in diseases of the skeletal system is shown by a well-planned chapter on diseases of the bones and joints. Written not too dogmatically for a text-book, the well-ordered cataloguing of disease conditions covered is quite at variance with the well-known text-book of Dr. MacCallum. From the standpoint of the student, information is obtainable in the text with a minimum of effort.

The Dangerous Age in Man. By Chester Tilton Stone. 97 pp. New York: The Macmillan Company. $1.75.

In this monograph Dr. Stone outlines for the layman the anatomy, physiology and pathology of the prostate gland. In general, his exposition of the subject is in accord with modern medical opinion, although every one might not agree with him as to the importance of infection as a factor in prostatic hypertrophy.

The author has great confidence in the efficacy of prostatic massage; one gets the impression that if all men of forty-five or over submitted regularly to this treatment, prostatic disease would become practically non-existent.

It is of course difficult to write a book like this without appearing to overemphasize the importance of one's subject. After reading "The Dangerous Age in Man," a man who is already within this age might well feel that henceforth his life must depend on the welfare of his prostate gland. In spite of this almost unavoidable overemphasis, the book contains much sound advice. We commend the author for not once mentioning prostatic resection, except by implication.

The Autonomic Nervous System. By Albert Kuntz. Second Edition. 697 pp. Philadelphia and London: Lea & Febiger. $7.50.

Recent work on the autonomic nervous system, particularly in relation to surgery, has called forth a more detailed account and a survey of our present knowledge of this subject. The book under consideration covers not only the anatomy, both gross and microscopic, but also the physiology, pathology and surgery. It offers the most detailed and authentic book on the subject which is available. Each of the chapters is supplemented by an extensive bibliography, giving references to the latest researches. There are many illustrations and an excellent index. The author also wrote an excellent textbook of neuro-anatomy, published in 1931. The present publication is equally sound and deserves the highest recommendation.